

AT THE MERCY OF THE MILLERS: EMPIRE, SCIENCE, AND IMPORT
SUBSTITUTION IN COLOMBIA, 1930-1966

A Dissertation
Presented to the Faculty of the Graduate School
of Cornell University
in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy
by
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August 2012

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**AT THE MERCY OF THE MILLERS: EMPIRE, SCIENCE AND IMPORT
SUBSTITUTION IN COLOMBIA, 1930-1966**

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Cornell University, 2012

This dissertation examines processes of nation and state formation in Colombia through an analysis of the context and debates surrounding the importation, production, and consumption of wheat. Traditionally, state formation in Colombia is studied through the lens of violence or partisan conflict, and generally emphasizes the power of private industrial and agricultural interests to co-opt the state, in the process subverting democratic processes. This dissertation argues, on the other hand, that conflict can be a constructive process of state formation. It examines, for example, the debates and discourse of various actors, many of whom, as they made demands on the state, articulated visions of the state as well as the relationship between a state and the citizenry. Although they may not have succeeded in achieving their immediate aims, they did demonstrate their adherence to the Colombian state and helped strengthen it through their discourse. Similarly, nation-building in Colombia is often described as a top-down process in which state actors articulate their vision of the nation through maps or economic atlases. The role of non-state actors, particularly popular ones, is sidelined. This dissertation examines how various groups articulated their visions of the nation as they worked to defend their economic interests. Finally, it opens new avenues for understanding the economic policy known as import substitution industrialization.

Where other studies focus generally on abstract macro-economic indicators in an effort to explain why these policies “failed,” this dissertation presents detailed and nuanced analysis of the social and cultural aspects of import substitution in order to demonstrate that such policies had effects that extended beyond the economic sphere.

BIOGRAPHICAL SKETCH

Prior to graduate school, Rebecca Tally worked for a decade as a grantwriter in a variety of non-profit/non-governmental organizations in Mexico and New York City focused on community development, women's rights, and Latin American culture. This experience inspired her to study the entwined histories of international philanthropy and economic development. In partial fulfillment of the requirements for a Master's degree in Latin American and Caribbean Studies at New York University, Rebecca wrote a thesis focused on the role of the Rockefeller Foundation in agricultural modernization and land reform in mid-twentieth century Colombia. At Cornell, Rebecca completed a major field in Latin American History, focusing primarily on Mexico, Colombia, and Brazil, and minor fields in Comparative Agrarian History and the History of Science, Race, and Gender. Rebecca has presented papers throughout the Americas at conferences organized by the American Historical Association, the Latin American Studies Association, and the Association for the Study of the Worldwide African Diaspora, among others. Rebecca has received a variety of grants and fellowships, including a Fulbright-Hayes Doctoral Dissertation Research Fellowship, a Foreign Language and Area Studies Fellowship, a Graduate Assistantship at New York University's Center for Latin American and Caribbean Studies, a travel grant from the Latin American and Iberian Institute at the University of New Mexico for research at the university's Center for Southwest Research, and travel grants from the the Walter LaFeber Fund and the Tinker Foundation.

In Memory –

David “Doc” Robinson

When you said I had to write my paper in iambic pentameter, I whined and complained.

But, now I know:

Any improvements in my writing skills I owe to you, Doc.

You are deeply missed.

ACKNOWLEDGEMENTS

First and last. When I crack open a book I haven't read before, I almost invariably read the acknowledgements first. And usually I start with the last few paragraphs where authors thank their closest friends and family. Then I go back and start from the beginning. Reading about the connections we all have between our "personal" and our "professional" lives, about our networks of support – financial, intellectual, spiritual, emotional, and otherwise – inspires me, reminds me of the awesome power of human connection. I always appreciate truly thoughtful acknowledgements, where authors deeply reflect on the innumerable ways that their project, while certainly a product of their hard work and intellectual effort, is imbued on every page with the spirit, conviviality, and assistance of their colleagues, mentors, friends, family, financial supporters, and the often silent, yet absolutely essential work of the administrative support staff in academic departments, libraries, and archives.

I looked forward to writing my own acknowledgements. Thanking everyone who helped me along the way seemed like such a joyous task, I planned to save the best for last, as the saying goes, and savor the process.

Ironically, the moment for writing the acknowledgements comes at a time when I am most starkly reminded once more of how this dissertation would never have happened without the incredible support of my friends and family. For years I have walked the path in Cornell's Arts Quad where the statues of A.D. White and Ezra Cornell sit at opposite ends. I have walked that path innumerable times – on the way to various department colloquia, to go lead discussion sections, to meet friends for coffee.

I have walked down that path with a book freshly checked out of the library, already peeking at the acknowledgements. And for the last two years, I have rode on the path on my bicycle in the morning arriving to campus, and in the evening, heading home. The view of the Quad from that center path, winter or summer, always filled me with joy. Trees all around, the library on one side, Sibley dome on the other, McGraw Hall in front of me – it was impossible to imagine that the path would play such a crucial role in my final days at Cornell. One moment several days ago I was rolling over a bumpy part of the path, and the next moment I was no longer on the bike, but on the ground instead, with a broken and lacerated nose, bruised ribs, and an assortment of scrapes and soon-to-be bruises. Trying to pack and get the dissertation into submission-ready state while dealing with such intense pain was a challenge that I could not handle alone.

And thus, once again, friends and family have stepped in to help. Sadly, this has meant that my dream of thoughtful and deeply reflective acknowledgements of all of assistance I have received in this process will have to wait. In their place, I offer this very poor substitute: several lists, with the high probability that I will forget to mention someone.

This dissertation has been supported financially by a variety of grants and fellowships, including a Fulbright-Hayes Dissertation Research Fellowship, a Foreign Language and Area Studies Fellowship, two Provost Diversity Fellowships from Cornell University, a grant from the Latin American and Iberian Institute at the University of New Mexico for study at its Center for Southwest Research and travel

grants from the Walter LaFeber Travel Grant Fund, the Tinker Foundation, Cornell University's Latin American Studies Program and its Graduate School.

I have been truly blessed to have such an intellectually rigorous and supportive committee. Mary Roldán, Raymond Craib, Suman Seth, and Duane Corpis helped me in more ways than I can possibly count and I cannot begin to express my gratitude.

Everyone in my family has been nothing but supportive throughout my years in grad school and this dissertation would most definitely have not happened without my their encouragement and assistance. My mother and stepfather, Carole and Sam Simone, provided me with a place to stay for over a year as I worked through the materials I collected in the field and began to construct dissertation chapters. Their generosity allowed me to focus solely on my dissertation. It was also wonderful to have the opportunity to spend a year living my parents as an adult. I had lived away from home for a long time by then; having had the chance to be so close to them for such an extended period of time is something I will always cherish. My brother and nephew, Maynard and Tyler Tally, have helped move my books (and furniture and clothes) so many times they could have started their own moving company! My brother, in particular, has never complained about my almost yearly moves, and I will always fondly remember the day he remarked, during the middle of a move, that he knew how important those boxes of books were to my work. My sister-in-law and nieces, Christy Hally and Tayler and Natalia Tally, have always cheered me with their encouragement and lovely spirits, and I am grateful to have their love.

My aunts, Elizabeth Stark and Regina Locicero, are very special to me. They both played an enormous role in making my childhood the happy one that it was and they have continued to offer their love and support in a variety of ways. I always appreciate my Aunt Betsy's thoughtful questions about my dissertation or the process of completing a Ph.D. as well as the assistance moving my stuff that both she and Aunt Nina have offered me. And I am so pleased that they were both able to come and share in the joy that was my graduation ceremony at the Lincoln Center when I completed a Master's degree from New York University. It was also wonderful that my cousin Alicia Stark and her daughter Madison Umbel were able to share in the joy (and heat!) of my Cornell graduation and I thank them both for their love and the fun times we've had combining Uno and youtube.

I wouldn't even know where to begin to express my love and gratitude to Debbie Hannah and Lori Petrozello-Karn. Not to sound cliché, but friends like those are truly precious and I would most certainly not be where I am without either one of them. Jannemieke Nooteboom has also been a supportive friend over many years and I hope the miles that keep us apart will be the only thing that separates us in the future. I have also been fortunate to have Susana Romero come into my life a few years ago. *The New York Times* recently published a very silly article saying that it is harder to make good friends as you get older; my friendship with Susana is vivid evidence that this is not true. And it's good to know that if this academic thing doesn't work out, we can always fall back on the telenovela we're writing together!

I'd like to give special thanks to Barb Donnell in the History Department for her help over the years. And the staff at Olin Library is phenomenal! I would also like to thank the organizers of the New York State Latin American History Workshop for providing such a wonderful venue for presenting work-in-progress.

There are many, many more people who have enriched my life in ways large and small. From Colombia to New York City, Ohio, Ithaca, and beyond, I have been immensely fortunate that so many people have been part of my journey through life and graduate school. I would like to thank:

Andrew Amstutz, Claudine Ang, Christopher Bailey, Tom Balcerski, Ed Baptist, Jaider Bello Alvarez, Jorge Botero, Judith Byfield, Adam Bursi, Chris Cantwell, Miller Castrillón, Donette Chambers, Derek Chang, Erwin Cifuentes, Ligia Cortes, Mari Crabtree, Lina Del Castillo, Phil Ceplice, Virginia Cole, Maritza Colon, Hilary Dorsch Wong, Ryan Edwards, Sarah Ensor, Heather Furnas, Maria Cristina García, Anna Geltzer, Durba Ghosh, Greg Grandin, Elaine Habeger, Julie Jacoby, Maeve Kane, Taran Kang, Rob Karl, Amy Kohout, Emma Kuby, Peter Lavelle, Cecilia Lawless, Julian Lim, Ricardo López, Fernando Martínez Durango, Linda McLaughlin, Marcela Mejía, Daegan Miller, Esneda Mora, Pablo Morales, Michelle Moyd, Rena and Dusty Nash, Nicole Nelson, Amy Offner, Lisa Onaga, Patty Oscategui, Camila Pizano, Ryan Plumley, Kate Proctor, Wilson Quinceño, Jacqueline Reynoso, Jorge Rivera Marín, Dave and Ellen Robinson, Joshua Rosenthal, Aaron Sachs, Elvira Sánchez-Blake, Sarah Selvidge, Jorge Silva, Mindy Smith, Abbey Steele, Darla Thompson, Sinclair Thompson,

Robert Travers, Brett Troyan, Lucelly Villegas, Margaret Washington, Andrew Whitworth-Smith, Emma Willoughby, and George Yúdice.

I am certain that I have forgotten important people – please forgive my poor memory. I also note that any mistakes or errors in this dissertation are my own.

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ACRONYMS/ABBREVIATIONS

ACIA	Asociación Colombiana de Ingenieros Agrónomos (Colombian Association of Agronomic Engineers)
ACOPI	Asociación Colombiana de Pequeños Industriales (Colombian Association of Small Industrialists)
ADEPAN	Asociación Nacional de Panaderos (National Bakers' Association)
ASEMOL	Asociación de Molineros (Millers' Association)
ASEMOLPRO	Asociación de Molineros de la Zona Productora (Association of Millers from the Productive Zone)
Caja Agraria	Caja de Crédito Agrario, Industrial, y Minero (Agrarian, Industrial, and Mining Credit Company)
CAP	Colombian Agricultural Program (of the Rockefeller Foundation)
DIA	Departamento de Investigaciones Agropecuarias (Department of Agricultural Research, part of the Ministry of Agriculture)
Ecopetrol	Empresa Colombiana de Petróleos (Colombian Petroleum Company)
FAO	Food and Agriculture Organization (of the United Nations)
FEDECAFE	Federación Nacional de Cafeteros (National Coffee-Growers' Federation)
FEDEMOL	Federación Nacional de Molineros (National Millers Federation, previously ASEMOL)
FIP	Federación de Industriales de Panificación (Federation of Bread-Making Industrialists)
GPW	Great Plains Wheat Market Development Association, Inc.
IA	Ingeniero Agrónomo (Agronomic Engineer)
IFA	Instituto de Fomento Algodonero (Cotton Promotion Institute)
IICA	Instituto Interamericano de Cooperación Agrícola (Interamerican Institute of Agricultural Cooperation)
INA	Instituto Nacional de Abastecimientos (Institute of National Supplies)
INCORA	Instituto Colombiano de Reforma Agraria (Colombian Land Reform Institute)
Procebada	Asociación para el Fomento del Cultivo de la Cebada (Association for the Promotion of Barley Cultivation)
RF	Rockefeller Foundation
SAC	Sociedad de Agricultores Colombianos (Colombian Agriculturalists Society)
SENA	Servicio Nacional de Aprendizaje (National Vocational Training Service)
STACA	Servicio Técnico Agrícola Colombo-Americano (Colombian-American Agricultural Technology Service)

UNAL	Universidad Nacional de Colombia (National University of Colombia)
USDA	United States Department of Agriculture

INTRODUCTION

When wheat is exported from one country to another, it is a foreign commodity in the importing country – at least until it reaches millstones or grinding rollers. But after that grain has passed through those stones or rollers, does the resulting flour remain an imported product or does it become a national one? In an era of free trade, multinational corporations, and stockyards stacked mile-high with shipping containers this question may seem silly. With so many products (and their constituent parts and raw materials) rapidly crossing borders, it might seem a waste of time to try to define what is and is not “national.” Nevertheless, despite free trade agreements – and more likely because of them – sorting out answers to such questions remains important. The existence of strict rules regarding labels and packaging and definitions of “made” versus “assembled” attests to the ongoing importance of differentiating between national and foreign goods.¹

Of course, in other, more protectionist eras and contexts, these questions were vital – and no less complicated. Such was the case in Colombia in 1936. Even before the Great Depression disrupted global trade, Colombia began moving away from a purely export-led model of economic development, toward a more state-led, inward-looking

¹ Although strict, these rules are also somewhat subjective. Consider, for example, the criteria used to determine if a product can carry the label “Made in USA”: it must be made “all or virtually all” in the United States. How far back in the production process its component parts or raw materials were imported into the country, and how much of the finished product is comprised of those parts or materials are examined to decide if the “virtually all” designation is appropriate. See the Federal Trade Commission’s guide to “Made in USA” for an illustration of the complexity in making such determinations: Federal Trade Commission, “Complying with Made in USA Standards,” (1998) - <http://business.ftc.gov/sites/default/files/pdf/bus03-complying-made-usa-standard.pdf>. Of course, these standards are strictly monitored today not to control importation of goods, but rather to prevent false advertising claims, as this Small Business Administration discussion attests: <http://community.sba.gov/community/blogs/expert-insight-and-news/business-law-advisor/made-usa-labels-information-manufacturers-retailers-and-consumers-0>.

one.² Supporting domestic industry became the goal of economic policy, and it was defined broadly to include both agriculture and manufacturing. Restrictions on imported food commodities and consumer goods were put in place. Wheat, in particular, was subject to strong protectionist measures. Although briefly repealed in 1929, due to flour shortage and high bread prices, the restrictions were reinstated in the early 1930s.³ But in 1936, millers on the Caribbean coast asked for a reduction in customs duties for grain imports –transportation costs between the wheat producing regions in the central highlands and the coastal cities of Cartagena, Barranquilla, and Santa Marta were prohibitively high and threatened to repeat the flour and bread shortages of a few years earlier. The state agreed and lowered import tariffs for wheat, based on the presumption that those same high transport costs would keep flour produced from imported grain confined to the Caribbean coast.⁴

Thus it is not surprising that the Colombian state objected when the coastal millers also asked for preferential internal shipping rates for their flour. At the time, items of prime necessity, such as some food products, enjoyed reduced rates on the nation's railway system and millers on the Caribbean coast felt that their flour should

² As José Antonio Ocampo noted, "the international crisis [the Depression] simply accelerated processes that were in already in place." These included banking reforms, the development of social and labor movements, the expansion of the railroad and highway system, and increased tariffs on imported goods (which helped to pay for transport improvements). See, Ocampo, "Crisis mundial y cambio estructural (1929-1945)," in *Historia económica de Colombia*, ed., José Antonio Ocampo (Bogotá: Siglo Veintiuno Editores, 1987), 209. See also, Rosemary Thorp & Carlos Londoño, "The Effects of the Great Depression on the Economies of Peru and Colombia," in *An Economic History of Twentieth-Century Latin America, Volume 2, Latin America in the 1930s: The Role of the Periphery in World Crisis*, edited by Rosemary Thorp (New York: Palgrave, 2000).

³ Salomón Kalmanovitz and Enrique López Enciso, *La agricultura colombiana en el siglo XX* (Bogotá: Fondo de Cultura Económica, 2006); Absalón Machado Camacho, *Políticas agrarias en Colombia, 1900-1960* (Bogotá: UNAL, Centro de Investigaciones para el Desarrollo, 1986).

⁴ "De Francisco José Chaux a Administrador General Ferrocarriles Nacionales, Bogotá, November 23, 1936," Archivo General de la Nación (AGN), Fondo Presidencia de la República, Secretaria General, Box 243, Folder 24, Ministerio de Industrias, folios 130-133. I'd like to thank Susana Romero Sánchez for enthusiastically sharing this source.

be one of them. Francisco José Chaux strongly disagreed. Previously the Minister of Industry, and in 1936 a member of the senate, he wrote to the General Administrator of the National Railway, urging the railroad to deny coastal millers preferential rates for the flour they milled from imported grain. It didn't matter that they "nationalized" the wheat by paying customs duties, he argued – doing so did not eliminate its "intrinsic foreignness." More importantly, those imports represented a serious threat to national wheat production.⁵

For Chaúx, this was unacceptable, considering how much the national government had been promoting and protecting domestic production of both industrial and agricultural goods. Those efforts had been paying off, achieving "truly gratifying results." Granting the preferential shipping rates the millers requested would threaten those achievements, he argued, because Colombia was still not in a position to compete with the world's primary wheat producers. Circulating their product throughout the country would flood the nation with cheaper flour of foreign origin, harm wheat growers and millers in the highlands, and make a mockery of the reasons the national government had relaxed customs duties for the coastal millers in the first place.⁶

Perhaps even more important was the effect such a measure would have on public opinion. According to Chaúx, the Colombian people were very excited about the protectionist policies and what they had achieved. He claimed that they were "without a doubt, one of the principal bases of the faith that public opinion has in the current national government and of the absolute trust that workers have in it." A follow-up

⁵ *Ibid.*, f. 131. All translations, unless otherwise noted, are my own.

⁶ *Ibid.*, fs. 130, 132.

statement expressed even more forcefully Chaux' belief that Colombians were deeply committed to protectionism:

The citizens resign themselves to the great sacrifices that the global crisis with its national repercussions imposes, in exchange for the programs to develop national production that this Government has been implementing and sustaining and which are an undeniable guarantee of future well-being.⁷

With this statement Chaúx also subtly chided the coastal millers: they needed to make sacrifices like everyone else. He acknowledged that allowing them to supply the country with flour made of foreign grain would greatly benefit them. But, the negative effects were strong: it would hurt highland wheat growers and millers and ultimately, the economy as a whole. Noting that this was a "very visible struggle among commercial interests," he regretted that "the prosperity of one means the development of Colombian wealth and the well-being of a great number of the country's farmers and industrialists. The prosperity of the other can only come at the expense of national production, and thus, of the well-being of the great majority of the nation's workers." For Chaúx, the short-term profits of one sector could not take precedence over the entire nation's long-term development.⁸

Chaúx's arguments for the denial of the millers' request provide a good example of the embeddedness of economic discourses. While the former Minister of Industries clearly took into account the competing commercial interests of the actors involved as well as the overarching economic consequences of granting the millers preferential

⁷ Ibid., f. 130. It is notable that the Spanish original uses the term "well-being" ("bienestar") – a term that supposedly did not come into vogue in development circles, at least those in the global North, until the 1960s.

⁸ Ibid., fs. 132-133.

shipping rates, neither his opinion nor his justification of it were based solely on economic concerns. Equally, if not more important, were the associated political and moral issues. These are evident in his references to public opinion and Colombian citizens. Public support for governmental policy mattered a great deal. This was during the administration of Alfonso López Pumarejo, the second Liberal president in power after thirty years of Conservative party rule. Where his predecessor, Enrique Olaya Herrera, had been a timid reformer of an entrenched political and economic system, López Pumarejo boldly introduced a variety of land, labor, educational, and administrative reforms. Known as the “Revolución en marcha” (Revolution on the March), these reforms won him the support of urban laborers and small-scale farmers alike.⁹ Thus, for Chaúx to evoke “public opinion” to justify denying the request was to make a statement about the administration’s political relationship with the citizenry. In other words, he was communicating a message about who the state represented and for whom it worked.

The political issues were closely tied to moral ones. To speak of sacrifices for the nation and of the well-being of the working classes was to make a moral judgment about economics. For Chaúx, the morally correct position was for industrial profit-seekers to understand that they could not earn those profits unfairly – benefiting only themselves while everyone else suffered. The discursive links between economics, politics, and morality was particularly strong at that moment in Colombia, and not

⁹ Alvaro Tirado Mejía, *Aspectos políticos del primer gobierno de Alfonso López Pumarejo (1934-1938)* (Bogotá: Planeta Editorial Colombiana, 1995).

solely because of López Pumarejo and the *Revolución en marcha*.¹⁰ This was also the era of Jorge Eliecer Gaitán, a more radical member of the Liberal Party and Mayor of Bogotá at the time of Chaux's letter about the coastal millers. While Gaitán and López shared the goal of eliminating oligarchic rule in Colombia (whether Liberal or Conservative), the former articulated this vision far more forcefully.¹¹ He strongly spoke out against the collusion between the United Fruit Company and the ruling elite, which resulted in a massacre of striking banana workers in 1928. His vehement denunciation strongly endeared him to the working classes. A brilliant orator and charismatic popular leader, he eloquently articulated the moral foundation of politics and economics, when he spoke of a Colombia divided into the "political country" and the "national country" – the first consisting of the oligarchic ruling elite and their political lackeys, and the second consisting of the noble and working class people who hoped to build a more economically just and politically democratic society. He is widely

¹⁰ Colombia is not the only Latin American country where political, economic, and moral issues have been entwined. One of the best articulated manifestations of that connection has been analyzed by Richard Weiner, in which he looked at the impact of *Rerum Novarum*, the Papal Encyclical on 1891 that addressed the condition of the working classes and criticized rapacious industrialists who exploited the workers. This document was widely discussed in Mexico at the end of the nineteenth century, and generated much debate among industrialists themselves about the nature of the market and capitalism. See, Richard Weiner, "Competing Market Discourses in Porfirian Mexico," *Latin American Perspectives*, 26 (January 1999): 44-64; Weiner, *Race, Nation, and Market: Economic Culture in Porfirian Mexico* (Tucson: University of Arizona Press, 2004).

¹¹ Tirado Mejía, *Aspectos políticos*, 24. Both men understood that neither the Liberal nor the Conservative parties were free from connections to the oligarchy, but this was particularly important for Gaitán. As contemporary observers and later scholars have pointed out, Gaitán experienced prejudice and exclusion from the upper classes because of his lower middle-class origins and skin color. As Herbert Braun so ably discussed, the elites of both parties separated themselves from everyone else in society, and worked together (in an informal system called "convivencia" ("conviviality")) to maintain the status quo and societal hierarchy intact. See Herbert Braun, *The Assassination of Gaitán: Public Life and Urban Violence in Colombia* (Madison: University of Wisconsin Press, 1985).

considered the important populist leader in Colombian history, a conception fueled by the mythmaking that followed his assassination in 1948.¹²

Why do I stress the point that there was a connection between political, economic, and moral issues evident in Chaúx's response to the coastal millers? After all, historians have long examined change over time using the framework of political economy – meaning the interaction of law, custom, politics, and economics.¹³ They have also incorporated conceptions of morality in the marketplace, inspired by E.P. Thompson's notion of the moral economy – the idea that people's ideas about the market incorporated considerations of fairness and justice, which he eloquently argued by pointing out that the lower classes in eighteenth century England organized riotous protests of bread shortages not simply because they were hungry or famine was

¹² On Gaitán's political impact, see Braun, *The Assassination of Gaitán*; W. John Green, "'Vibrations of the Collective': The Popular Ideology of Gaitanismo on Colombia's Atlantic Coast, 1944-1948," *The Hispanic American Historical Review* (HAHR) 76 (May 1996): 283-311; Green, *Gaitanismo, Left Liberalism, and Popular Mobilization in Colombia* (Gainesville: University of Florida Press, 2003).

¹³ "Political economy" is, of course, both an analytical framework and an historical phenomenon in its own right. When historians speak of studying "the political economy," they often follow that phrase with the preposition "of" – specifying that they will study the laws, politics, customs, and economics of a particular country, economic policy, or industrial or agricultural sector. Thus, an analysis of "the political economy of populist Argentina" examined efforts by Perón to balance the interests of workers and industrialists at a time when manufacturing was overtaking agriculture as the primary engine of the nation's economy. Another study analyzing the "political economy of famine relief," examined the relationship between local politics, taxation, and granaries in eighteenth century China. See, James P. Brennan, "Prolegomenon to Neoliberalism: The Political Economy of Populist Argentina, 1943-1976," *Latin American Perspectives* 34 (May 2007): 49-66; Carol H. Shiue, "The Political Economy of Famine Relief in China, 1740-1820," *The Journal of Interdisciplinary History* 36 (Summer 2005): 33-55. "Political economy" (without the definite article) refers to an intellectual and political development in eighteenth century Europe (particularly Britain) in which moral philosophers conceptualized a new relationship between the rulers and the ruled, one in which individuals would be free of political and economic constraints imposed by the government in collusion with "traditional" institutions such as the church, guilds, or commercial entities. Of course, from this new philosophy eventually emerged a study of economics, which by the late nineteenth century became (supposedly) separated from questions of culture and tradition, and focused more on the workings of an abstract market, which itself eventually become an object of econometric study known as "the economy." For analyses of the radical nature of eighteenth century political economists, see: Emma Rothschild, *Economic Sentiments: Adam Smith, Condorcet, and the Enlightenment* (Cambridge, MA: Harvard University Press, 2001); Tatsuya Sakamoto & Hideo Tanaka, eds., *The Rise of Political Economy in the Scottish Enlightenment* (London: Routledge, 2003). On the emergence of "the economy" as an object of study, see Timothy Mitchell, "The Character of Calculability," in *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley: University of California Press, 2002).

imminent, but rather because they perceived that unfair practices were at play to create or exacerbate those shortages (such as selling flour abroad).¹⁴

Despite these powerful threads in historical scholarship, over the past two decades, the study of economic history has been relegated to remote corners of the academy. This is not to say that there have been no studies of economic history. Economic aspects play a central role in a variety of sub-fields, such labor, agricultural, and business history.¹⁵ A recent surge in interest in food history puts economic issues front and center, especially in studies focused on food systems, consumerism, or commodities.¹⁶ For Latin America, there has been a small boom in the economic history of the *Porfiriato*, the thirty-year period of rule by Porfirio Díaz in Mexico (1876-1910), characterized by dynamic industrial and export growth, infrastructural projects, and

¹⁴ E.P. Thompson, "The Moral Economy of the English Crowd in the Eighteenth Century," in *Customs in Common: Studies in Traditional Popular Culture* (New York: The New Press, 1993). Thompson's essay was originally published as a journal article in 1971 and influenced James Scott, who expanded the framework from food riots to full-scale peasant rebellions, but argued essentially the same thing – that peasants rebelled after making estimations of what were fair and unfair demands on their labor and harvests. Intriguingly, they did not protest in years when they were required to turn over larger portions of their harvests – because those demands represented what seemed a fair proportion of their total harvest. They did object in years when they were required to hand over less, because those years it represented a higher proportion of their total harvest. This simple formula does not do justice to Scott's full analysis of the cultural and religious aspects that factored into peasants estimation of fairness. See, James C. Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (New Haven: Yale University Press, 1976).

¹⁵ Some historians still give economic issues a central place in large-scale historical events. For example, Russell R. Menard argues that the rise of the British Empire and an "English North Atlantic" in the eighteenth century can only be understood by considering the role of plantation agriculture (tobacco and sugar) and, more specifically, how the rise in productivity gains fueled the imperial coffers and led to English dominance of the North Atlantic. Menard, "Plantation Empire: How Sugar and Tobacco Planters Built their Industries and Raised an Empire," *Agricultural History* 81 (Summer 2007): 309-332.

¹⁶ Many of these studies also focus on issues of science and technology. See, for example: Gabriella M. Petrick, "'Like Ribbons of Green and Gold': Industrializing Lettuce and the Quest for Quality in the Salinas Valley, 1920-1965," *Agricultural History* 80 (Summer 2006): 269-295; John Soluri, *Banana Cultures: Agriculture, Consumption, and Environmental Change in Honduras and the United States* (Austin: University of Texas Press, 2005). Others look at the connections between taste, the market, and labor. See, Jeffrey M. Pilcher, *The Sausage Rebellion: Public Health, Private Enterprise, and Meat in Mexico City 1890-1917* (Albuquerque: University of New Mexico Press, 2006); Michael Wise, "Colonial Beef and the Blackfeet Reservation Slaughterhouse, 1879-1895," *Radical History Review* 2011 (Spring 2011): 59-82.

concentration of land and wealth.¹⁷ Others have recently questioned the long-held assumption that Latin American dependence on external markets (economies based on the export of raw materials and agricultural commodities) prevented the growth of dynamic, diversified, and self-sustaining domestic economies.¹⁸

Nevertheless, that the study of economic history has gone out of fashion is a commonplace notion. Economic history journals still exist, but their econometric approach to history dramatically differs from the dominant theoretical and methodological frameworks widely in use. At this point, it is not uncommon for scholars to lament the absence of economic analyses and examinations of the connections between materiality and cultural history.¹⁹ In a recent article, William Sewell described this divergence between economic history and other forms of historical analyses. He noted that in the middle of the twentieth century, a variety of

¹⁷ The Porfiriato has generally been studied through a teleological lens, with the Revolution the inevitable outcome of Porfirian economic policy and practice. More recent studies have begun to examine the Porfiriato on its own terms. Paolo Riguzzi offers a comprehensive overview of this literature in: "From Globalisation to Revolution? The Porfirian Political Economy: An Essay on Issues and Interpretations," *Journal of Latin American Studies* 41 (May 2009): 347-368. Alan Knight, in his characteristically witty way (who else could proclaim NPR's program Car Talk to be one of the U.S.' most important cultural contributions to the world? (doing so to provide a metaphor about the kinds of questions historians ask) also discusses this growing body of literature: Knight, "Patterns and Prescriptions in Mexican Historiography," *Bulletin of Latin American Research* 25 (July 2006): 340-366.

¹⁸ Fernando Rocchi, for example, showed that there was no contradiction between export growth and domestic industrial development, and that, in fact, they worked in tandem. Rocchi, *Chimneys in the Desert: Industrialization in Argentina during the Export Boom Years, 1870-1930* (Stanford: Stanford University Press, 2006). The narrative told by Marshall C. Eakin has a less positive outcome. He argues that the lack of local technological innovation hampered the development of a strong industrial base, capable of sustaining itself (although he doesn't explain why local technological innovation did not happen). Nevertheless, he offers a detailed study of the development of an internal market in twentieth century Brazil. Eakin, *Tropical Capitalism: The Industrialization of Belo Horizonte, Brazil* (New York: Palgrave, 2002).

¹⁹ In her presidential address at the American Historical Association's annual meeting in January 2008, Barbara Weinstein praised the linguistic, cultural and postmodern turns for providing important critiques of the language used to describe poverty and inequality, critiques that show that the language itself constructs those categories rather than simply describing them, but wondered if it weren't possible to find ways of writing and talking about material inequalities – of engaging in "historical discussion of the origins and causes of spatial inequalities." In other words, she would like historians to be able to explain how global material inequalities came into being, and feels that the linguistic, cultural, and postmodern turns do not provide sufficient tools for doing so. Although she does not advocate a return to taking our sources at their word, rather than questioning why they choose those certain words and what they mean by them, she does hope that economics and materiality can be brought back into our historical work. See, Barbara Weinstein, "Developing Inequality," *American Historical Review* 113 (February 2008): 1-18.

scholars engaged in what he termed “the study of forms of economic life” – analyses of the ways that economics intersected with politics, society, religion, and social class.

Done well, these studies were embedded in their social contexts and offered insightful analyses of sweeping historical narratives. Their connection to the *Annales* School was strong; Sewell quoted a review of medieval economic history by Marc Bloch, who praised efforts to embed economic issues into their social and political contexts:

“...[Bloch] stressed that ‘intimate links united economic activity to other forms of human life. To deny or to silence them under the pretext of specialization in research would be to falsify, by means of an unacceptable abstraction, the entire tableau of the past.’”²⁰ Sewell recognized that sometimes such studies, while rich in contextual and specific detail, failed to offer explanations for broad historical changes over time, but were rather detailed descriptions of one group of individuals, their specific economic issues or problems, and how they attempted to address them.²¹

In spite of such shortcomings, Sewell suggested that these studies still had advantages over the econometric forms of analyses that superseded them. Focused on an abstract market, rather than on the groups and individuals who created, gave meaning to, and interacted in that market, econometric studies, while often empirically

²⁰ William H. Sewell, Jr. “A Strange Career: The Historical Study of Economic Life,” *History and Theory* 49 (December 2010): 146-166: 149.

²¹ As Sewell noted, “In the hands of a great historian like Bloch, the history of economic life opened out striking vistas onto the larger social and cultural structures of society. But, as Bloch would have been the first to admit, economic history as the study of forms of life also underwrote many banal or merely competent works as well, including most of those published in the *Journal of Economic History*. Indeed economic history as the history of economic life tended to be relatively vague about causal relations: a thorough description of the situation faced by the entrepreneur, the industry, or the policy-maker and of the actions to which this situation gave rise was the goal for most *JEH* articles in this period.” *Ibid.*, 149.

rich, essentially took humans out of history, granting historical agency to those abstract market forces. As he pointed out:

...the new economic history had a much more epistemological object than the old economic history: not persons, institutions, and social movements, but growth rates, economic aggregates, productivity, and investment. This was, precisely, a move from economic history as the study of forms of economic life to economic history as the historical study of the determinants of national economic growth.²²

Sewell lamented the unfortunate timing of the demise of economic history (as the study of forms of economic life). To begin with, econometrics was not the only new form of historical analysis. The cultural/linguistic/postmodern turn began to take hold as well. These new methodologies denied economic determinism, leading many of their practitioners to reject the study of materiality. This new trend became broadly dominant in the historical profession and thus exacerbated the split between econometric analyses of macroeconomic phenomena on one hand, and cultural history analyses of race, gender, and ethnicity, on the other. For Sewell, the timing of this split could not have been more unfortunate. Beginning approximately in the 1970s, global capitalism underwent a dramatic transformation. State-led economic development policies in place for several decades in a variety of countries went out of favor. Neo-liberal economic policies became ascendant and globalization accelerated. Sewell points

²² Ibid., 151-152. Sewell pointed out that this new form of economic analysis was not completely negative; its practitioners were empirically-minded and uncovered data ignored by previous historians. But, the object of their analyses was still problematic. As he noted: "...economic historians were by no means uninterested in collecting empirical data. Quite the contrary, they greatly expanded the collection of data, often exploiting new and unsuspected sources of quantifiable evidence with tremendous ingenuity and assiduity. But the questions they were interested in answering ceased to be primarily about forms of economic life. Although one might study the cotton textile industry or railroads, what was important to economic historians about such topics was not, for example, how work experiences or clothing fashions were changed by the advent of mechanized cotton production, or how the development of street railroads enabled new forms of urban life, but rather what effects technological change, rising capital investment, decreased turnover time, and labor productivity in the cotton or railroad industry had on the growth of GDP per capita." Ibid., 153.

out that these changes brought negative consequences for working classes around the world, and even eroded the position of middle classes. These are important processes that need to be studied, he argued: “This dramatic and difficult transition from one framework of world capitalism to another poses important issues for historical reflection and research.”²³ Unfortunately, according to Sewell, economic issues have not yet seen a resurgence among historians, and while practitioners of a new analytical trend known as “economic sociology” put the idea of the “social embeddedness” of certain economic issues at the heart of their studies, he argues that they are simply replicating the mistakes of some earlier *Annales* historians: they often only examine “responses to economic stimuli...[and fail] to address the dynamics of the overall world capitalist system.”²⁴ Moreover, he suggests that there is little interest in studying “the exploited” – peasants or industrial workers.²⁵ Thus, some of the most dramatic impacts of the changes in global capitalism remain unstudied.

While Sewell and other historians who lament the decline in economic history (and the interest in “the exploited”) do have a point, there is a part of the methodological turn toward postmodernism that they overlook. Over the past two decades, an interdisciplinary sub-field has emerged that is loosely labeled “postdevelopment theory.” Centered on the work of scholars using postcolonial forms of analysis to explain both the discursive construction of the globe into “developed/First World” and “underdeveloped/Third World” parts, as well as the

²³ Ibid., 164.

²⁴ Ibid.

²⁵ Ibid., 157.

discourses and practices used to maintain and perpetuate that construction, this small group of historians (and larger group of geographers and anthropologists) have primarily focused on the time period and people that seem to most concern Sewell: the post-World War II period of the twentieth century (particularly post-1970), and subsistence farmers and indigenous groups.

In the early years of this new methodology and area of study, scholars focused on critiquing the way that development programs and thought tied discourses about economic policies to political ideologies and thinly veiled racial stereotypes. They also often approached development from a Foucaultian framework. Thus, James Ferguson examined the “instrument effects” of development programs in Lesotho – they failed to achieve any substantial increase in well-being or economic growth, but wildly succeeded in de-politicizing the development programs themselves, thus masking their more substantial effect of structuring an entire nation as a subordinate player on the global stage, dependent on the whims and largess of development agencies based in the global North while simultaneously subordinating citizens to a state organized by those foreign agencies.²⁶ Similarly, Arturo Escobar’s examination of development programs in Colombia (considered a foundational text in the field), asserts that “First World economics” were imposed on “Third World” countries, despite the fact that the former’s precepts and principles were inappropriate for the latter’s social, political, and

²⁶ James Ferguson, *The Anti-Politics Machine: “Development,” Depoliticization, and Bureaucratic Power in Lesotho* (Minneapolis: University of Minnesota Press, 1994).

economic conditions (Timothy Mitchell made a similar argument about the supposed universality of economics in a study of development in Egypt).²⁷

Gustavo Esteva, a less well-known early practitioner of postdevelopment theory, shared with Escobar, Mitchell, and Ferguson a criticism of the imposition of neoliberal economic policies and practices on subsistence farmers and indigenous groups. He also spoke eloquently of the corollary to these criticisms: the imposition of this outside “expertise” marginalized the knowledge and practices of those farmers and indigenous groups – knowledge that was much more deeply embedded in its social and political context, and thus, more likely to be a strong basis for devising development programs that would actually have a positive effect on the lives and livelihoods of those small-scale producers.²⁸ Escobar also focused on the issue of local knowledge and practices. But, his emphasis was on the top-down approach of development practitioners and the ways they marginalized the voices of the poor. Criticism of such emphasis generated a second trend in postdevelopment theory, which focused on the ways that local knowledge could often subvert the authority of the outside “experts,” and offer viable alternatives to development, if taken seriously into account. This approach questioned the Foucaultian frameworks that dominated previous studies, replacing it with

²⁷ Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World* (Princeton: Princeton University Press, 1995); Mitchell, *Rule of Experts*. Although not approaching the subject from the postcolonial perspective taken by Escobar and Mitchell, Sarah Babb discuss the transition in the Mexican economics from a focus on state-led development to neo-liberal policies, a transition that occurred through U.S led efforts to reshape the academy in Mexico. Yves Dezalay and Bryant Garth describe a similar process for the whole of Latin America, focusing on the elite struggle for hegemony over state policy. Sarah Babb, *Managing Mexico: Economists from Nationalism to Neoliberalism* (Princeton: Princeton University Press, 2001); Yves Dezalay and Bryant Garth, *The Internationalization of Palace Wars: Lawyers, Economists, and the Contest to Transform Latin American States* (Chicago: University of Chicago Press, 2002).

²⁸ Gustavo Esteva, *The Struggle for Rural Mexico* (South Hadley, MA: Bergin & Garvey, 1983). Esteva’s championing of indigenous and local knowledge and practices came to be known as “la via campesina” (“the farmer’s path”).

something that could be called Gramscian (although they rarely frame their analyses this way): they acknowledged the power differentials at play, but gave local actors capacity to change the outcome. As one practitioner eloquently asserted:

Critics have noted that these postdevelopment approaches share 'debilitating elements of the structuralist logic [they] wish to transcend' ...and thus risk substituting neoliberal or Marxist economism with discursive determinism...Rather than seeing development as a universal 'machine' ...that acts in the same way everywhere, development is better conceived of as a set of specific projects with their own histories and characteristics. The insistence on the West as the privileged, originary source of development and its meanings can be sustained only 'by holding at bay the immense evidence of the polyvocal, polylocal nature of development performances and appropriations.'²⁹

Scholars have attempted to break down the concept of development as a "machine" by looking, for example, at the ways that traditional practices of gift exchange transform "modern markets" and attempts by development planners to impose them, or how indigenous groups build networks that unite urban and rural areas and allow them to maintain their cultural identities.³⁰

²⁹ Emily T. Yeh, "Tropes of Indolence and the Cultural Politics of Development in Lhasa, Tibet," *Annals of the Association of American Geographers* 97 (September 2007): 593-612, 594.

³⁰ George N. Curry argues that development practices can be modified to accommodate other understandings of the market through an examining of indigenous palm producers in Papua New Guinea and how they fuse traditional gift-giving with "modern market" practices. Curry, "Moving Beyond Postdevelopment: Facilitating Indigenous Alternatives for 'Development,'" *Economic Geography* 79 (October 2003): 405-423. Anthony Bebbington questions the critiques of the state in both postdevelopment theory and neoliberal criticisms of development, both of which claim that the state is the major problem – it either dominates and imposes modernity or it prevents the market from operating freely and instituting the transformations that would alleviate poverty or would implement "development." He shows that in Ecuador, indigenous groups have developed strong economic links between rural and urban areas that allow them to hold on to their cultural identities, and which have had success precisely because they have been supported by the state. Bebbington, "Reencountering Development: Livelihood Transitions and Place Transformations in the Andes," *Annals of the Association of American Geographers* 90 (September 2000): 495-520. David D. Gow also discusses the important role of the state in local development planning that worked to preserve indigenous traditions in Colombia, arguing that a crucial factor in the ability of a community to develop a truly viable plan depended on how well they were organized as a community before the attempt to draw up a local plan was tried. See, Gow, *Countering Development: Indigenous Modernity and the Moral Imagination* (Durham: Duke University Press, 2008). See also, Jason Antrosio, "Inverting Development Discourse in Colombia: Transforming Andean Hearths," *American Anthropologist* 104, (December 2002): 1110-1122; Julie Cupples, Kevin Glynn, and Irving Larios "Hybrid Cultures of Postdevelopment: The Struggle for Popular Hegemony in Rural Nicaragua," *Annals of the*

The point here is to note that Sewell and others decrying the decline of economic history overlook an important area of scholarship which does address some of their primary concerns, particularly the critique that econometric analyses ignore social context. Examining local practices and how they interact and fuse with the abstract market seems to be precisely the kind of analyses historians such as Sewell call for. Moreover, they look at “the exploited” that he referred to, and cover the time period that interests him. Of course, on the other hand, these studies may suffer from the critique that he makes of economic sociology: while they take seriously the notion of “social embeddedness” of economic life, offering fine and detailed portraits of the interplay between economics, religion, politics, and society, they do not offer much in the way of causal explanations for large-scale historical processes. The danger is that they can remain “local” rather than shed any light on “global history.”³¹

There is, however, another critique of the studies informed by postdevelopment theory, one that has not been widely made by scholars of any field – not even historians who should be the most interested. Most of the postdevelopment studies focus on the post-World War II period, particularly the period after 1970. Considering their strong connection to postcolonial studies, this makes sense. This is the period during and after

Association of American Geographers 97 (December 2007): 786-801; Katharine McKinnon, “Postdevelopment, Professionalism, and the Politics of Participation,” *Annals of the Association of American Geographers* 97 (December 2007): 772-785.

³¹ Of course, this is always not necessarily the goal of many of these studies, which have at heart a concern with improving the living conditions of poor people around the world, but doing so in a way that respects their cultural and religious traditions. See, in particular, Katharine McKinnon, “Postdevelopment, Professionalism.” Nevertheless, it is possible to do an in-depth examination of local knowledge and practices and the communities in which they are embedded, while still telling a much larger narrative of national identity formation, economic development, and global history as Akhil Gupta does in his insightful study of agricultural practices among subsistence farmers in modern India. See Gupta, *Postcolonial Developments: Agriculture in the Making of Modern India* (Durham: Duke University Press, 1998).

de-colonization, when neo-liberal policies replaced the state-led, inward-focused development programs of many newly independent countries. Thus, these studies seek to explain the neo-colonialism of the postcolonial period. This is certainly a worthwhile goal.

But, the state-led, inward-looking development programs put in place in “Third World” countries constitute development regimes in their own right. They had their own logic, and they attempted to impose practices and policies that would create a “modern economy” in their national spaces. Nevertheless, these programs and policies are sidelined in academia, sometimes politely, sometimes much more dismissively. One notes, for example, in Timothy Mitchell’s fine study on techno-politics and modernity in Egypt, the chapters that focus most closely on politics, economics, and society in Egypt itself concern either the late nineteenth/early twentieth centuries or the latter half of the twentieth century – the periods of colonial and (economic) neo-colonial rule. On the other hand, the chapters covering the early and mid-twentieth century – the latter being the period of state-led economic development programs – focus primarily on non-Egyptian actors from the global North (John Maynard Keynes, John D. Rockefeller, and Richard Critchfield, for example).³²

Mitchell briefly mentions the Egyptian policy of state-led development, which restricted foreign investment and closely regulated the economy between 1950 and 1970, approximately. But, he only mentions it when he begins a discussion of “infatih” – the “open door” economic policy instituted in 1970 that welcomed foreign and private

³² Mitchell, *Rule of Experts*. Colombia has its own version of this policy, beginning in the 1990s, known as “apertura” (“opening”).

sector initiatives (often working closely with state-run banks and agencies). He then quickly added that: “the significance of this change in policy should not be exaggerated.” Business ventures had been structured as public-private initiatives since the beginning of the twentieth century, he argued, and had undergone many adjustments over that same period. For Mitchell, *infitah* was clearly more of a discursive break than anything else: “The reforms of the last quarter of the twentieth century represented another series of adjustments, rather than any simple shift from ‘the state’ to ‘the private sector’ or, as it came to be known, ‘the market.’”³³

At least Mitchell was not completely dismissive of this apparently so-called “state-led” development policy. In one disparaging sentence, Escobar brushed aside similar policies in Latin America, known as Import Substitution Industrialization (ISI). Although he did spend almost an briefly praise the economists associated with the U.N.-sponsored Economic Commission on Latin America (ECLA), who most coherently developed the theoretical underpinnings on which ISI was based, he ultimately condemned their work as derivative of economic ideas originating in “the West.” Citing Fernando Cardoso, he criticized their definition of economic development – “the process of capital accumulation and technological progress” – as having “the originality of a copy.”³⁴

There is, of course, some validity to these criticisms. Mitchell is right to point out that “periods” in history are arbitrary and reductive. Moreover, they are very often invented in order to create narratives about the present rather than the past (“the Dark

³³ Ibid., 211.

³⁴ Escobar, *Encountering Development*, 81.

Ages,” for example, in contrast to the “Renaissance,” in which the latter is celebrated as the beginning of our modern age, despite the fact that many of the concepts and precepts we associate with the latter period had their roots in the former).³⁵ Many examples exist, revolutions being the most obvious: as both the current context of the Arab Spring and innumerable historical revolts tell us – regime change alone does not immediately transform political, ideological, social, or economic structures. Conditions both before and after a seemingly transformational event or, in this case, a major policy change, often resemble each other far more than they differ. And certainly, there are a number of ways that the economic policies before and after the “open-door” programs of Egypt and Colombia (and many other Latin American countries) resembled each other. As the contemporary critics of ISI indicated – inward-focused, state-led development often looked very similar to its “open-door” cousin: foreign loans financing public and private sector initiatives, reliance on imported machinery (paid for through those foreign loans), and neglect of agricultural industries focused on food production in favor of exportable cash-crops (if agriculture was even promoted at all). These policies and practices were described by one observer as “dependent development” – the achievement of economic growth in a way that perpetuated Latin American and other “Third World” nations’ dependent relations with the “First

³⁵ Rogan Kersh describes how the history of the United States has been periodized over time by different groups with different political agendas, and that the vast majority of those periods reflect changes in political and economic conditions, and remain that way despite efforts by social historians to revise the periodization of U.S history based on social issues. Kersh, “Rethinking Periodization? APD and the Macro-History of the United States,” *Polity* 37 (October 2005): 513-522.

World.”³⁶ Dependency theorists’ critique that these policies only served to subordinate “developing nations’ to the whims and exigencies of international financial institutions seem prescient in the wake of the debt crisis of the 1980s.³⁷

It is also the case that ECLA’s economists did define economic development along lines that resembled the trajectory of industrialized nations in the global North. Although they did articulate a criticism of global capitalism and how it had unfairly structured the world into a “core” and “periphery,” their remedy (in broad outlines) was for the periphery to cut itself off and cultivate and protect its domestic industries, in order to achieve the levels of growth prevalent in the core.³⁸ In other words, they did

³⁶ Peter Evans, *Dependent Development: The Alliance of Multinational, State, and Local Capital in Brazil* (Princeton: Princeton University Press, 1979).

³⁷ The contemporary critics include some of the most well-known “dependency theorists” in Latin America: Fernando Henrique Cardoso and Enzo Faletto, *Dependency and Development in Latin America* (Berkeley: University of California Press, 1979); Celso Furtado, *Development and Underdevelopment* (Berkeley: University of California, 1964). The increased dependence and subordination of developing countries on international financial institutions based in the global North evident in the debt crisis of the 1980s is widely acknowledged. See, for example, Veronica Montecinos and John Markoff, “From the Power of Economic Ideas to the Power of Economists,” in *The Other Mirror: Grand Theory through the Lens of Latin America*, eds. Miguel Angel Centeno and Fernando López-Alves (Princeton: Princeton University Press, 2001): 124. See also, Victor Bulmer-Thomas, *The Economic History of Latin America since Independence* (Cambridge: Cambridge University Press, 2003, 2nd edition); Victor Bulmer-Thomas, John H. Coatsworth, and Roberto Cortés Conde, eds., *The Cambridge Economic History of Latin America* (Cambridge: Cambridge University Press, 2006); Rosemary Thorp, *Progress, Poverty, and Exclusion: An Economic History of Latin America in the 20th Century* (Washington: Inter-American Development Bank, 1998). In the late 1980s and early 1990s, when the “structural reforms” imposed by the IMF to deal with the debt crisis were having their worst effects, various studies by economists and political scientists examined the origins of the crisis and the impact of the IMF’s prescriptions, noting that while the crisis had a variety of causes, including the oil crises of the 1970s, predatory lending practices on the part of international financial institutions, and the inefficiencies of some state-led economic development programs, the World Bank and the IMF focused almost solely on the latter as the cause of the debt crisis. See, for example: Trevor W. Parfitt and Stephen P. Riley, *The African Debt Crisis* (New York: Routledge, 1989); Rosemary Thorp and Laurence Whitehead, eds., *Latin American Debt and the Adjustment Crisis* (Pittsburgh: University of Pittsburgh Press, 1987).

³⁸ The most well-known of ECLA’s economists was Raúl Prebisch, an enigmatic figure, criticized by actors across the political spectrum. In his early years he tended toward conservative views, and worked with organizations representing large landowners and beef exporters. During his extensive travels in the 1920s and 1930s, however, he began questioning the dependent role Argentina created for itself by becoming Britain’s primary source of beef. While visiting countries of Eastern Europe, he began developing the idea of “unequal exchange.” He later served as an economic advisor in different capacities during various presidential administrations, but eventually fell out of favor with Perón. Ultimately, he began to question some of the ideas he had promoted – and certainly the ways that they had been implemented, and left Argentina in 1964. See, Edgar Dosman, *The Life and Times of Raúl Prebisch, 1901-1986* (Montreal: McGill-Queens University Press, 2008); Joseph L. Love, “Raúl Prebisch and the Origins of the Doctrine of Unequal Exchange,” *Latin American Research Review* (LARR) 15, no. 3 (1980): 45-72. Intriguingly, a 1988

not ultimately question the fundamental economic precepts, principles, and goals of “developed nations,” and simply promoted an alternate method of implementing or achieving them.³⁹

But the problems with periodization are not easily solved by simply suggesting that they have no real significance. Likewise, just as characterizing historical periods based on a limited number of events and phenomenon can serve specific purposes in constructing narratives about the present, dismissing periods in history also entails

debate about Prebisch’s influence on Argentine economic policy illustrates one of the main points of this introduction (and dissertation), namely, that economic ideas have life beyond the theorists who first outline them. Kathryn Sikkink argued that Prebisch had not had as significant impact on Argentine policy-making as was later claimed, because entrenched political interests, critical of his ideas, prevented them from being implemented. See, Sikkink, “The Influence of Raúl Prebisch on Economic Policy-Making in Argentina, 1950-1962,” *LARR* 23, no. 2 (1988): 91-114. Three economists responded: Adalbert Krieger Vasena, “Comments on the Influence of Raúl Prebisch on Economic Policy-Making in Argentina, 1950-1962,” *LARR* 23, no. 2 (1988): 115-119; Richard D. Mallon, “The Influence of Raúl Prebisch on Argentine Economic Policy-Making, 1950-1962: A Comment,” *LARR* 23, No. 2 (1988): 120-123; Hugh Schwartz, “Raúl Prebisch and Argentine Economic Policy-Making, 1950-1962: A Comment,” *LARR* 23, no. 2 (1988): 124-127. Krieger Vasena was a former Minister of Finance, who claimed that many of Prebisch’s recommendations were in fact implemented, although perhaps not precisely in the form that he proposed them. Mallon, a Harvard economist, critiqued Sikkink’s assertion that Prebisch was unaware of the local political situation, and this is what made him so ineffective in Argentina, countering that “It is difficult to believe that Don Raúl did not become more deeply embroiled in local politics because he ‘misunderstood the context and debates of Argentine society.’ I find it much more plausible to believe that he thought that greater personal political involvement would have been inconsistent with his role as an outside technical advisor.” (p. 121). He also noted the “...difficulty of assessing the influence of an outside advisor on policy-making. Normally, an outside advisor is obliged to accept existing political constraints and the convictions of those in power; he or she is expected to play the role of a neutral technocrat.” (p. 120) (His comments are reminiscent of the Rockefeller Foundation’s Colombian Agricultural Program, whose members and officers at various times noted the urgent need for land reform in Colombia, suggesting that agricultural “modernization” would never happen without it, but also indicating that this was a political problem that they “wouldn’t touch with a fifty foot pole.” (“Diary notes of Ulysses J. Grant, dated June 7, 1960,” Rockefeller Archive Center (RAC), Record Group 12.3, Box 21.) In other words, they were quite aware of both social inequities, and the political landmine into which they would have walked had they suggested doing anything about them, and instead chose to remain publicly silent on the issue. In regards to the influence of foreign economic advisors, Lauchlin Currie, the World Bank economist criticized at length by Arturo Escobar in *Encountering Development*, made a similar point, lamenting that most of his advice had never been taken. See, Currie, *The Role of Economic Advisers in Developing Countries* (Westport: Greenwood, 1981). In her response, Sikkink noted that the connection between politics and economics, the ultimate point of her article: “The political context in which Prebisch operated colored the interpretations of his economic policy recommendations. The commentators, perhaps because they are economists, have deemphasized this central political argument of the article.” See, Sikkink, “The Influence of Raúl Prebisch on Economic Policy-Making in Argentina, 1950-1962: Response,” *LARR* 23, No. 2 (1988): 128-131.

³⁹ It is important to recognize that these policies were not implemented uniformly across Latin America. Some countries (Brazil, Chile) followed ECLA’s ideas closely, while others (Mexico, Argentina, Colombia) did so loosely. (It is unsurprising that Chile would have embraced ECLA, being that its Latin American offices were based in Santiago.) However, as the discussion in the previous footnote makes clear, programs and policies resembling ECLA’s were implemented everywhere across the region, even if they were known by other names or modified to fit local conditions. See, Bulmer-Thomas, *Economic History of Latin America*; Bulmer-Thomas, Coatsworth, and Corteís Conde, *Cambridge Economic History*; Thorp, *Progress, Poverty, and Exclusion*.

attempts to construct an alternate narrative about the present, a process often resulting in a new periodization, instead of a breakdown of the entire concept. Consider the issue at hand – the postcolonial critiques of ISI and other statist development projects and the periodization that suggests that they were different from the economic policies that came before and after. The ultimate object of these analyses is to study colonialism, whether it is colonial, postcolonial, or neocolonial. The scholars involved are working to construct a new narrative about the present, one in which formal colonial structures came to an end, but colonialism itself did not. And, again, they do have a point – the policies of that supposedly statist, inward-looking period did indeed perpetuate (and possibly increase) developing nations dependence on and subordination to the financial institutions of the global North.

Thus, these scholars dismiss a rigid division between “closed” and “open” economic periods. Unfortunately, in doing so, they offer the other side of the same coin presented by the neoliberal perspective on these policies. Both neo-liberal and postdevelopment/postcolonial economists, historians, geographers, and anthropologists criticize the period of state-led development, although they have different reasons for doing so and differing explanations for why those policies were unacceptable. The ultimate result, however, is to erase an important part of the history of the countries in question, or, as Marc Bloch would have put it, “...to falsify...the entire tableau of the past.”⁴⁰

⁴⁰ Bloch, quoted in Sewell, “A Strange Career,” 149.

Indeed, ushering in a new period of neo-colonialism, instituting “dependent development,” or laying the foundation for a massive debt crisis was hardly the intention of those promoting or implementing state-led development programs. To reduce them to that is to ignore not only the historical agency of the specific economists and development planners involved, but also, the entire political, social, and economic conditions of those countries during this time period. Returning to Sewell’s discussion about the embeddedness of economic ideas, discourses, and practices suggests that much could be learned about the countries that implemented such policies – if they are evaluated on their own terms, rather than viewed through a neoliberal or postdevelopment lens.

Like all development programs, Import Substitution Industrialization (ISI) (and its less well-known cousin, Import Substitution Agriculture, or ISA), was a “project of hope.”⁴¹ Its proponents and practitioners imagined a “better world,” one improved in both material and intangible ways. The goal was a society in which there existed a better-fed, better-housed, and better-educated labor force and a pacific, culturally advanced, and democratically-inclined citizenry. The middle-class, in particular, would be strengthened, while the poor would escape poverty, depravation, and misery, especially in the countryside. These goals were to be achieved by focusing on macro-economic indicators and large-scale industrialization projects, under the assumption that the material and intangible gains would automatically follow.

⁴¹ McKinnon, “Postdevelopment, Professionalism.”

In these programs, the hope and optimism were directed not at the economic indicators in and of themselves, but rather, at what they represented for the economists and state planners who implemented them. Ultimately, these were forms of envisioning a nation-state, based on moral judgments about what was politically, socially, and economically right and correct. This, of course, is not to deny that there were powerful actors who did not care at all about the larger development objectives import substitution hoped to achieve, and whose primary concern was increasing their bottom lines, even if it meant perpetuating, exacerbating, or creating new forms of socio-economic inequalities. But, to reduce ISI to these actors is to overlook what it represented to a variety of other people. In other words, it is not good history.

This is especially the case considering the way that ISI traveled through societies. While it was economists and development planners who conceived of these policies in their most elaborately abstract and theoretical forms (even when making specific policy recommendations), they were not the only actors who discussed, debated, or attempted to implement them. Workers, farmers, scientists, industrialists – these and many others also elaborated their own interpretations of ISI (perhaps calling it something different, such as “national self-sufficiency”), which also involved a vision of the nation-state containing moral judgments about what was politically, socially, and economically right and correct. When interpreted by popular actors, these moral judgments were often cast in terms of fairness and justice (harking back to E.P. Thompson’s English bread rioters who protested unjust market practices rather than the simple absence of bread). In other words, although ISI may not have been conceived as a participatory

development project (as such projects are today), a variety of citizens participated nonetheless.

It is for this reason that Francisco José Chaúx's invocation of political and moral issues in his letter about the coastal millers' request for preferential shipping rates matters. Economic arguments about commercial interests are deeply intertwined with conceptions of the nation, the state, and social class.⁴² This is dramatically evident in Chaúx's discussion of how much the Colombian people supported the government's protectionist policies, despite the hardships it caused them and the sacrifices it forced them to make. Chaúx's letter reminds us that economic ideas represent beliefs about the relationships among social classes and between citizens and the state – beliefs often based on moral values of fairness and justice. Originating as they do in the social realm, those economic ideas also have strong effects on that realm. Evoking ideas about the nation or the state is itself a constructive process. Thus, as the well-known volume on *Everyday Forms of State Formation* tells us, the process of building a state does not occur simply through violence and authoritarian imposition of power.⁴³ It is also a bottom-up process in which people negotiate with local or individual representatives of the state,

⁴² The study of the social and political effects of economic policies during the post-World War II era has been done for the United States, for example. To return to the very beginning of this introduction, for example, part of the reason that the label "Made in USA" is so heavily regulated is precisely because the phrase "Buy American" has meanings that extend beyond purely economic ones. It is about national identity, a sense of belonging to the nation, and also, expressing certain beliefs about one's place in the nation. Some works on economic nationalism in the United States, which emphasize the nationalistic part of the phrase include: Dana Frank, *Buy American: The Untold Story of Economic Nationalism* (Boston: Beacon Press, 1999); Meghan Warner Mettler, "Gimcracks, Dollar Blouses, and Transistors: American Reactions to Imported Japanese Products, 1945-1964," *Pacific Historical Review* 79 (May 2010): 202-230. Frank argues that "Buy American" is a slogan often used by industrialists or merchants for a variety of purposes that do not serve the interests of workers, while Warner argues that in the immediate post-World War II period Americans generally viewed imported Japanese goods as inferior, but as the products improved, wartime racism returned, and fed the construction of a noble and heroic view of American industry – and the nation – by the 1960s.

⁴³ Gilbert M. Joseph and Daniel Nugent, eds., *Everyday Forms of State Formation: Revolution and the Negotiation of Rule in Modern Mexico* (Durham: Duke University Press, 1994).

and in the process become incorporated into it. Similarly, through the process of negotiating with state actors over differing interpretations of import substitution policies, a variety of actors in Colombia engaged in a constructive process of nation, state, and social class formation. Sadly, such negotiations remain understudied.

This dissertation will examine a case of such interplay between economic ideas, and nation, state, and social class formation through an examination of “everyday forms of import substitution industrialization in Colombia,” focused on one particularly commodity. Wheat was at the nexus of a variety of regional, class-based, technoscientific, and transnational conflicts. Thus, this dissertation provides a series of interconnected narratives involving a wide array of actors, ultimately telling a story of hope and decline. Along the way, these actors constructed the nation, the state and social classes. This is especially important in Colombian history, as the story of its nation-state formation has long been portrayed as incomplete or fragmented, despite evidence suggesting otherwise.

Chapter 1 will provide an overview of these issues. Relying primarily on secondary sources (along with a handful of scientific journal articles, ministerial reports, national and regional newspapers, and the *Revista Nacional de Agricultura*, the magazine of the Colombian Society of Agriculturalists), it accomplishes two things: 1) provides an overview of the historiographical issues related to Colombian nation, state, and class formation; and 2) introduces the regional, scientific, and economic conflicts over wheat between 1930 and 1945. This chapter lays the foundation for understanding how competing neocolonial discourses in the post-World War II era entered a rich context

that would ultimately structure how they interacted with each other and with autochthonous economic discourse. It also provides the background on Colombian nation, state, and class formation, which is often described as incomplete, partial, or weak. Most studies locate the beginnings of those processes in the 1930s, and the historiographical overview will explore the reasons why such assertions are made.

Drawing primarily on *The Wheat Situation*, a quarterly USDA report, and the master's theses on wheat written in Colombia between 1946 and 1955, chapter 2 shows how agronomists countered insinuations from U.S. wheat exporters that poor climatic conditions precluded national self-sufficiency. Domestic U.S. policy during and immediately after World War II encouraged overproduction of wheat; as post-war cultivation resumed in Western Europe, the USDA sought to build export markets by discouraging efforts to achieve self-sufficiency in other parts of the world. Colombian agronomists responded in several ways: repeated references to the diverse geographic origins of wheat varieties, careful discussion of research and analytical methods to demonstrate their scientific credibility (and hence, ability to develop wheat seeds apt for Colombia's growing conditions), modifications in methods of statistical analysis to reflect national self-sufficiency goals, and research projects focused on national varieties and problems. The chapter argues that discourses of ISI and the Green Revolution merged in the work of these scientists as they struggled to counter a neoliberal, neocolonial discourse attempting to shape Colombian economic development policy, ultimately resulting in a form of nation-building, as the agronomists articulated a vision

of national development and inscribed it on a national territory they defined as apt for wheat growing.

Chapter 3 utilizes the extensive material in *El Panadero Colombiano*, the trade journal of the National Bakers' Association (ADEPAN), to demonstrate how ISI inflected associational and class conflicts between 1955 and 1961. Bakers complained that millers speculated with nationally produced flour, driving up prices for a poor quality product. Viewing imported flour as an essential raw material, they lobbied for its inclusion in a special class of permitted imports; millers considered it a finished product competing with their own and strove to ensure continued import restrictions. To justify their claims, ADEPAN, positioned bread-baking as a large-scale industrial sector, through numerous articles on management and labor relations and references to the industry's "100,000 employees." This chapter argues that development discourse is not simply wielded by economists or government planners to control marginalized groups, but rather, diffused throughout society, and adapted by a variety of actors in order to make claims on the state and its policies. It also has the effect of creating and sharpening existing class divisions and constructing new ones.

Records from Colombia's National Archives and the Rockefeller Archive Center inform chapter 4, which examines the conflicts between barley and wheat promoters from 1954 to 1959. The Bavaria Beer Consortium, one of Colombia's largest industrial entities, was fully committed to import substitution, striving to produce beer entirely from national materials. After funding research on an improved barley seed, Bavaria promoted cultivation of its new seed variety by providing technical assistance to

farmers and helping them secure credit. It also stabilized the market by guaranteeing prices and purchasing entire harvests. Wheat farmers operated under opposite conditions. Millers offered no assistance with technical or credit issues and often refused to purchase harvests or offered excessively low prices. Meanwhile, Colombia's largest manufacturers of plant-derived consumer goods (textiles, cigarettes, and beer) worked with the national government to secure U.S. P.L. 480 funding to expand the country's fertilizer industry and thereby increase self-sufficiency. Substitution applied only to certain products, however, as this funding was contingent on continued importation of U.S. wheat. Thus the goals of wheat and barley promoters collided. This came to a head in 1959, when the Ministry of Agriculture's much-touted improved wheat variety succumbed to a virus for which it had no resistance. Disparaging insinuations of shoddy scientific work by the Ministry's agronomists were reported at the Agricultural Fair that August, resulting in a two-months' long public relations battle. Bavaria-affiliated agronomists downplayed the role of credit and a stable market in ensuring the success of their barley variety, arguing that the substitution program was successful because it was built on a solid scientific foundation (implying that the wheat improvement program was not). Ministry of Agriculture and Rockefeller Foundation agronomists countered by arguing that economic and social issues, not scientific ones, explained both barley's success and the failing wheat substitution efforts. This chapter demonstrates that as development discourse diffuses through society and acquires different interpretations, it can mask the very inequities it is purportedly attempting to overcome. Moreover, it argues that both moral and political

issues evident in the interpretation of inequities in state economic development policies constitute “everyday forms of state formation.”

Chapter 5 returns to *El Panadero Colombiano* and the continuing struggle of the bakers of ADEPAN between 1960-1962. After its efforts failed to alter import policies favoring grain over flour, a rift emerged. A small group of highly mechanized bakers split from the predominantly artisan bakers who constituted the vast majority of ADEPAN’s membership. From then on, ADEPAN emphasized the small-scale nature of Colombian bread production and aligned with wheat farmers to protest grain imports, claiming that flour produced by combining a small amount of imported brands with flour milled from national grain was more suitable for their less mechanized production methods. ADEPAN also sharpened its class rhetoric, drawing on and entering the class-based conflicts prevalent in Colombia at the time.

Chapter 6 examines the heightened efforts to both achieve self-sufficiency in wheat and discourage such substitution between 1960 and 1964. Relying on a variety of archival and published sources, including records from the Rockefeller Archive Center and the Colombian National Archives, *El Panadero Colombiano*, *Agricultura Tropical* (the scientific journal of Colombia’s agronomists), masters’ theses, and technical reports from the Colombian Institute for Technological Research, among others, the chapter initially discusses a 1960 report on Colombian demand for wheat, which concluded that domestic production would never meet the needs of the industrializing nation. Disparaging efforts to achieve self-sufficiency, it recommended that Colombia focus instead on crops more suited to its climate, such as bananas, sugar cane, or palm oil.

The report was co-authored by an official at the USDA and an advisor to the Great Plains Wheat Development Association. Reaction in Colombia was strong. A variety of agricultural organizations, such as the rice-growers' association, came out strongly in defense of the nation's wheat growers, relying on familiar arguments about the diverse origins of wheat varieties, and claiming that the report's erroneous information was supplied by the agricultural attaché at the U.S. embassy in Bogotá. The Rockefeller Foundation also strongly condemned the report's methods and conclusions. Shortly afterward the Federation of Cereal Growers was established to defend the interests of the nation's wheat growers. Meanwhile, the Institute for Technological Research (IIT), originally established to provide technical support to the nation's small- and medium-sized businesses, began publishing reports based on research at its farinology lab claiming that domestic flour had poor bread-making capacity. Their conclusions were based on definitions of "quality" in wheat and flour that pre-supposed large-scale, highly mechanized industrial production, which characterized only a small percentage of Colombia's baking operations at the time. Agronomists at the Ministry of Agriculture, supported by the Rockefeller Foundation, refuted the IIT's conclusions through research at its own farinology laboratory. Masters' theses completed at this time lent additional support. This chapter argues that competing neocolonial and Colombian-based economic development discourses complicate the notion of empire and the idea that local actors merely respond to discourses rather than actively participate in their creation.

CHAPTER 1

Fluffier Bread and Injustices against the Coast: Wheat, Nation, State, and Class in Twentieth Century Colombia – An Introduction

From the first page of the inaugural issue in 1939, the students in charge of the *Revista Facultad Nacional de Agronomía* forcefully expressed their belief that their scientific studies of agriculture were meaningless if Colombia did not go boldly forward with the land reform that had been enacted three years earlier.¹ Based in Medellín, the National Faculty of Agronomy had recently been incorporated into the National University of Colombia, and the dean was busy re-organizing the curriculum and administrative structure. This included providing support for a publication that disseminated the results of scientific studies conducted by the students and faculty, as well as other researchers in Colombia. Such work was indeed published in the *Revista* during its first year of operation: among others, the Chair of the Faculty's Chemistry Section presented work he and his team had been doing to develop a portable tool to quickly assess the chemical composition of soils, Aycardo Orozoco R. published his Masters' thesis on rocks and soil chemistry, and the taxonomist at the Forestry Section of the Ministry of National Economy wrote about his work classifying Colombian palm

¹ Although enrollment lists for these years seem to be unavailable, it is clear that Lafaurie and Atehortúa were students at the time, evident by the editorial note in 1941 when two new students took over as directors. In the note, the two new students praised Lafaurie and Atehortúa for both ably leading the journal and passing to the practicum stage of their studies – a stage that would send them away from Medellín to do field work in Colombia's other experimental stations at different altitudes. See, "Nueva dirección," *Revista Facultad Nacional de Agronomía* (hereafter RFNA) 3 (January-February 1941): 897-898.

trees.² The *Revista* also featured a lengthy two-part series on the origins of modern genetics, focused primarily on the work of Mendel.³

The *Revista* also included various articles discussing the professionalization of agronomy, or more specifically, how to enhance its standards, practices and reputation in Colombia. Thus, it published Eduardo Chavarriaga Misa's thesis on organizing national agricultural services and Francisco Navarro Ospina's report of a trip he took to California and Mexico to observe agricultural industries and research programs.⁴ It also published a list of the country's "Agronomic Engineers," their locations around the country, and the positions they held.⁵

But, equally represented in the *Revista's* pages were articles and editorials focused on some of the primary social, economic, and political issues of the day, particularly those related to agriculture. Although the articles addressed a variety of topics, several overall themes were prevalent: national self-sufficiency in agriculture,

² J. M. Duque Jaramillo, "Contribución al estudio de las palmetas de Colombia," *RFNA* 2 (July-August 1940): 709-720; G. Jaramillo Madariaga, "Nefelómetro para la dosificación aproximada de potasio en soluciones muy diluidas," *RFNA* 1 (August 1939): 20-26; Aycardo Orozco R., "Generalidades sobre rocas y análisis químico de suelos," *RFNA* 2 (January-April 1940): 486-529. Jaramillo Madariaga's article offers an intriguing case study on science in the global South. Early in the article, he anticipated a potential criticism of his work – why, some might ask, didn't he just purchase the tools he needed from abroad? He preemptively responded to those critiques with three points. The first was that, while there were a variety of nephelometers available, most were of only marginal quality, and the Faculty could not afford to purchase the high-quality ones that would ensure consistent and accurate measurements. The second reason was that buying the equipment from abroad meant being "continually dependent" on the external market for repair and maintenance parts. The third was far less concrete, and much more nationalistic: "It seems that now is the time for us to put some stamp of originality on our scientific work and that we adopt, as much as possible, our own methods, especially if it can be shown that they are not inferior to those that we slavishly copy from foreign texts. We have an example in Caldas' hypsometer, which the majority of foreign texts describe as Humboldt's invention." Jaramillo Madariaga, 20-21.

³ Emilio Robledo, trans., "Orígenes de Mendelismo (1)," *RFNA* 2 (January-April 1940): 334-367; "Orígenes de Mendelismo (Conclusión)" *RFNA* 2 (May-June 1940): 560-588.

⁴ Eduardo Chavarriaga Misa, "Plan de organización de los servicios de fomento agrícola en Colombia," *RFNA* 4 (February 1941): 899-961; Francisco Navarro Ospina, "Informe sobre cuestiones agrícolas de un viaje a California y a Méjico," *RFNA* 1 (October 1939): 239-254. Modeled on the USDA, Chavarriaga's plan would combine research and extension and integrate the Faculty of Agronomy, the experiment stations, and the Ministry of Agriculture.

⁵ "Ing. Agr. Colombianos," *RFNA* 1 (October 1939): 213-214.

land reform, rural credit and technical assistance, and the need for enhanced agricultural extension services, with the nation's agronomists mediating between the state and farmers. For example, an article on the coffee economy praised coffee for being a positive force in the countryside, offering numerous small farmers the opportunity to live well off their own land: it was a "home-grown national industry... sustain[ing] the private patrimony of 50,000 families in Caldas."⁶ Gold, on the other hand, enriched only a few families and oil benefited no one in Colombia at all (aside from some road-building in Santander), since the industry was in foreign hands. Nevertheless, even though coffee offered an example of how a mountainous country could organize its economy on agricultural production, there were problems. Coffee trees were not producing as they used to, and the problem was that farmers had not taken proper care of their lands. Moreover, the article claimed that they had been given loans, but didn't use them to invest in the land, but rather to buy radios and clothes and other personal items. Thus, some degree of supervision needed to accompany loans, to ensure that farmers used them wisely. This was especially important the article argued contradictorily, because farmers didn't have easy access to credit. Without the necessary

⁶ Hernán Jaramillo Ocampo, "Economía cafetera," *RFNA* 2 (May-June 1940): 553-559. Jaramillo repeatedly emphasized the democratizing and socially just nature of coffee production. He later noted lyrically that, "The hardworking laborer and pastoral impetuosity of our people are both at work in our coffee industry, as well as their intellectual agility and thirst for possession. A permanent, long-term industry, it ties man to the plow and a plot of land, making him forget his condition of migrant laborer, converting him into a proprietor with a title and property lines. More than the law, our race or our customs – coffee has distributed land in Caldas. [Coffee] is an industry in which labor means more than capital." See, Jaramillo, 554. The notion that coffee production created democratic communities in the areas it was produced has become national myth in Colombia, but scholars have called this notion into question, noting that there was an equal amount of social stratification and political cronyism in coffee zones as in other parts of the country. On the myth of coffee and democracy, see James J. Parsons, *Antioqueño Colonization in Western Colombia* (Berkeley: University of California Press, 1949). For opposing views, see Keith H. Christie, *Oligarcas, campesinos, y política en Colombia: Aspectos de la historia socio-política de la frontera antioqueña* (Bogotá: UNAL, 1986); Marco Palacios, *El café en Colombia, 1850-1970: Una historia económica, social, y política* (Bogotá: Planeta, 2002 (3rd edition)).

capital to purchase required tools and supplies, they could not continue to produce Colombia's primary export crop. And that represented the loss of an industrious member of society: "Give a citizen capital and tools and you will have a farmer. Deny a farmer credit, capital, and tools and you will have a bureaucrat, an unemployed person."⁷

The primary concerns of this group of agronomy students were all evident in this short article: inequitable land distribution, lack of credit and technical assistance in the countryside as well as a professional class of highly-trained agronomists to ensure that land was properly managed, and foreign ownership of national wealth or its concentration into the hands of a few, both of which reflected a weak domestic economy dependent on foreign markets and large capitalists. Numerous other articles during that first year of publication of the *Revista* approached these questions from a variety of perspectives.⁸ Almost invariably, the students called on the national government to increase funding and programs for farmers, agronomists, rural credit institutions, and extension agencies, arguing that it was in the state's interest to promote national well-being.

Agronomy students were not the only ones to raise such issues in Colombia at the time. On the contrary, "the social question" was being widely discussed and debated. As the next section will describe, it was a key moment in Colombian nation-

⁷ Ibid., 557-558.

⁸ Among others, examples include: "Editorial," *RFNA* 1 (December 1939): 215-222; "Editorial," *RFNA* 2 (January-April 1940): 304-306; L. J. Carvajalino Jácome, "Reflexiones sobre la economía nacional," *RFNA* 1 (December 1939): 223-226; Guillermo Escobar Restrepo, "El contrato de aparcería," *RFNA* 3 (September-October 1940): 763-772; Jorge Gutiérrez E., "Crédito y técnica," *RFNA* 1 (October 1939): 132-134; Hernán Jaramillo Ocampo, "La ciudad contra el campo," *RFNA* 2 (January-April 1940): 307-311; Luís B. Ortiz C., "Política de población," *RFNA* 2 (January-April 1940): 312-333.

state formation, one in which important questions about the nature of the state and who it was meant to represent were being upended. Moreover, it was a time when the economy was rapidly diversifying after several decades of “coffee hegemony.” Economic interests were lobbying hard for a growing state to defend their particular industries. The Asociación Nacional de Industriales (ANDI), Colombia’s most important industrial association would soon be established and come to challenge and eventually eclipse the primary agricultural association – the Colombian Society of Agriculturalists (SAC). Over the subsequent decades, a variety of single-crop associations would further erode the power of the SAC.

But, the story was not that simple. Industrial and agricultural interests were not always inimical, and some of the most important single-crop associations were industry sponsored. Moreover, many smaller industrial associations existed. Some of them were aligned with ANDI; others were not. As these various associations and the industries and individuals they represented jockeyed for position *vis a vis* the national state, they adopted and adapted discourses of the nation, the state, the social question, and the social classes. Uncovering the ways that economic interests underlay the discursive constructions of these actors is one goal of this dissertation.

One of the richest examples of the adoption and adaptation of nationalist, class-based, and state-focused discourses lies with a commodity that does not usually come to mind when one thinks of Colombia: wheat. Despite efforts on the part of the Colombian national state, the Rockefeller Foundation, and a variety of Colombian agronomists to promote the production and consumption of nationally grown wheat,

there was tremendous debate and constant conflict over a number of questions regarding this staple crop. These debates centered on land use, technological investment, foreign exchange, rural credit and technical assistance, industrialized bread production, transport costs, speculation, and the consumption of less expensive imports from the United States. But, when the various interests involved in these conflicts discussed them among themselves and with the general public, they framed them as arguments about neo-imperialism, the universality of science, social injustice, and civility. They evoked dramatic imagery of drunken states, hungry children, shoddy science, flour incapable of making either bread or cookies, and the irrationality of believing that wheat – an apparently temperate crop – could be successfully grown in the tropics. To better understand and frame these conflicts, this chapter offers an overview of two crucial issues: Colombian state formation and the trajectory of its wheat production in the twentieth century.

Peace and Violence and the State in Colombia

Historical processes of state formation in Colombia are poorly understood, in general. This is paradoxical, considering that a sizeable portion of the country's historiography focuses on the state. Much of this scholarship, however, examines its connection to violence and exclusionary forms of democratic representation, the latter alternately termed at various times as "oligarchical democracy," "consociational democracy," or "convivencia."⁹ Despite their different names, all three terms essentially

⁹ Braun, *The Assassination of Gaitán*; Jonathan Hartlyn, *The Politics of Coalition Rule in Colombia* (New York: Cambridge University Press, 1988); Alexander W. Wilde, "Conversations among Gentlemen: Oligarchical Democracy in

describe the same phenomenon: the tendency of “elite” members of the Conservative and Liberal parties in Colombia to put aside their political differences and work together to ensure constancy in economic policies and overall economic stability. Facilitating this process was a sense of shared identity as “gentlemen,” which helped unite them in opposition to popular sectors, and thereby ensured the latter’s exclusion from decision-making and guaranteed that popular concerns were marginalized by the national state.

Such studies seek to address one of the primary – and problematic – questions of Colombian historiography: how can we explain the paradox of a country with strong democratic institutions but high levels of violent civil conflict and entrenched forms of political exclusion? Elite power-sharing arrangements emerging out of the intensity of nineteenth century political battles seemed to provide the answer. Like other Latin American countries, Colombia’s nineteenth century history was characterized by struggles over the centralization of power, the definitions of liberalism (both political and economic) and sporadic booms in export crops, which did not have long-term economic effects, but did occasionally disrupt regional balances of power. In Colombia, for example, short-lived booms in tobacco and quinine production in the Liberal

Colombia,” in *The Breakdown of Democratic Regimes*, ed. Juan J. Linz and Alfred Stepan, (Baltimore: John Hopkins University Press, 1978). All three of these analyses appeared following the formal end of the National Front – a power-sharing arrangement between the Liberal and Conservative parties that began in 1958, as a way of ending the partisan conflict associated with *la Violencia*. Formally, the National Front was in power between 1958-1974, but the alteration of power between the two traditional parties continued into the 1990s, with only occasional interruption. Only one of these studies focused on this period of “consociational rule” – Hartlyn’s analysis of the National Front. Braun and Wilde both discuss the informal period of “coalition rule” in Colombia from the beginning of the twentieth century, to the 1940s, when the system was disrupted by legislative changes that eroded the “power sharing” principles of the national government, while being strongly challenged by the eruption of significant social protest. On the electoral policies that facilitated and eroded power-sharing among elite actors, see also, Sebastián Mazzuca & James A. Robinson, “Political Conflict and Power Sharing in the Origins of Modern Colombia,” *HAHR* 89 (May 2009): 285-321.

northeastern departments and in Tolima forged economic interests with the potential to challenge the southern Conservative sugar plantation owners with strong ties to Popayán, the Church's most important ecclesiastical site in Colombia since the colonial era.¹⁰ Debates over church-state relations, trade and tariff policies, and federalism and centralism divided Liberals and Conservatives both along party lines and within parties themselves.¹¹ Twenty-three years of Liberal rule (1863-1886), followed by fourteen years of Conservative power (1886-1899) saw repeated conflict, ultimately resulting in the War of a Thousand Days, a brutal, three-year civil war, which ended the lives of two percent of the adult male population. Scholars debate the precise origins of this conflict, with some emphasizing political differences, and others economic ones. Coffee is central for the proponents of economic origins, as its emergence in the late nineteenth century obviously had a much deeper impact on the Colombian economy than did earlier export crops.¹²

What makes the War of a Thousand Days a defining moment in the consolidation of "oligarchic democracy" or "convivencia" is not, however, the sheer brutality of the conflict, although that brutality does play a role. Three factors are

¹⁰ Two classic works discussing these short-lived booms include: William Paul McGreevey, *An Economic History of Colombia, 1845-1930* (Cambridge: Cambridge University Press, 1971); José Antonio Ocampo, *Historia económica de Colombia* (Bogotá: Siglo Veintiuno Editores, 1987). An inspired exploration of the politic conflicts and competing economic ideas and policies associated with the guano boom in Peru during the same period is: Paul Gootenberg, *Imagining Development: Economic Ideas in Peru's "Fictitious Prosperity" of Guano, 1840-1880* (Berkeley: University of California Press, 1993).

¹¹ Helen Delpar, *Red against Blue: The Liberal Party in Colombian Politics, 1863-1899* (University: University of Alabama Press, 1981).

¹² Delpar, cited above, carefully analyzes intra-party conflict among Liberals, and argues that neither party had a monopoly on specific economic interests – in other words, traditional large landowners, new coffee growers and exporters, merchants, and traders could all be found in both parties. Charles Berquist, on the other hand, argues that, while there was some diversity within the parties, competing economic interests tended to align with different parties. Thus, in his view, fundamental partisan differences overshadowed any intra-party struggles, and meant that the partisan conflict that led to the War of a Thousand Days ultimately had economic origins. See Berquist, *Coffee and Conflict in Colombia, 1886-1910* (Durham: Duke University Press, 1978).

considered important in the emergence of the first Liberal-Conservative elite power-sharing arrangement. Coffee, again, is central. Marco Palacios, relying on statistics compiled by José Antonio Ocampo, notes that between 1834-1840, gold constituted 72.1% of all Colombian exports, while coffee accounted for less than 1% and tobacco less than 3%. Tobacco experienced moderate growth until the early 1850s, when its boom began. Between 1864-1874, tobacco surpassed gold, accounting for 37% of Colombia's exports in comparison to 30.1% for gold. Coffee exports also began to rise, but at a considerably more moderate pace. Eventually, tobacco exports bottomed out, replaced by quinine, which accounted for 30% of exports between 1881-1883. Gold exports amounted to only 18.7% during the same period, and coffee only 16.9%. By 1898, the year before the War of a Thousand Days began, the picture was completely reversed. Quinine was no longer exported. Tobacco exports made up only 8.3% and gold 17.4%. On the other hand, forty-nine percent of Colombia's exports consisted of coffee, the largest proportion any commodity had enjoyed since earlier in the century when gold predominated.¹³

Unsurprisingly, the War of a Thousand Days dramatically disrupted commerce and trade. Three years after the war ended, the total value of all exports was \$17,216 pesos – still below the 1898 peak of \$19,154 pesos. While all exports had declined, coffee's percentage of total exports had dropped from 49% in 1898 to 39.5% in 1905. The percentage of all exports fell except for one – “Other Agricultural Items.” This category included a variety of commodities, such as rubber, cacao, Brazilwood, sugar, and

¹³ Palacios, *Café en Colombia*, 51.

bananas, and it had experienced dramatic growth during the War. The likeliest explanation was the establishment of banana production in the department of Magdalena in 1899, led by the United Fruit Company (UFCO).¹⁴ Tucked away in a northern corner of the country largely removed from the primary battlefronts, UFCO had been able to establish its first banana plantations and begin exporting despite the conflicts that raged in other parts of the country.¹⁵ Although this brought some income to the Colombian national treasury, this was a disturbing phenomenon for coffee growers and exporters. Successful, foreign-owned banana production would only bring marginal returns to Colombia, with the majority of profits going outside the country. Coffee, on the other hand, had been a growing export before the War impacted production – and it was in Colombian hands. Thus, it was deemed imperative by exporting elites that the political climate be stabilized and an economic order favorable to coffee production be prioritized.

If this were the only factor, one might surmise that Delpar's claim that agricultural and commercial interests were represented in both parties was the correct one (rather than Berquist's claim that economic interests tended to align along partisan lines (see footnote #47). But, the War of a Thousand Days resulted not only in the loss of a significant amount of Colombian lives, but also the excision of seven percent of national territory. Panamá had long been a significant center of trade and commerce, from the colonial era all the way through the California Gold Rush of 1848, when it

¹⁴ Ibid.

¹⁵ Marcelo Bucheli, *Bananas and Business: The United Fruit Company in Colombia, 1899-2000* (New York: New York University Press, 2005).

became the quickest route for gold-seekers traveling from New York to San Francisco.¹⁶

As Bogotá derived much more benefit from Panama's commerce than Panama's regional leaders derived from inclusion in the Colombian nation, there were several unsuccessful secession attempts during the nineteenth century. At the dawn of the twentieth century, the U.S. sought to sign a treaty with Colombia to build a canal. In 1903, after these attempts failed, the U.S. took advantage of Colombia's weakened post-war condition and supported Panamanian independence, providing the additional firepower the secessionists needed to secure their objective. Such a devastating loss affected both national coffers and national pride, and provided additional incentive to end partisan conflict and ensure a stable economic climate.¹⁷

The shock of losing Panama was matched by an unexpected turn of events in the War itself. Traditionally, scholars characterized the conflicts of the nineteenth century as "gentlemen's wars," in which wealthy landowners or merchants used clientilistic/patronage networks to raise private armies among a populace considered to be largely apolitical.¹⁸ The War of a Thousand Days did begin in such a fashion. Unlike previous conflicts, however, when a clear victor did not quickly emerge, popular actors broke away from elite-led armies and formed their own guerilla units, with competing

¹⁶ Aims McGuinness, *Path of Empire: Panama and the California Gold Rush* (Ithaca: Cornell University Press, 2008).

¹⁷ Heraclio Bonilla & Gustavo Montañez, eds., *Colombia y Panamá: La metamorfosis de la nación en el siglo XX* (Bogotá: UNAL, 2004).

¹⁸ In an essay examining why national political consensus was so difficult to achieve in the nineteenth century, for example, Marco Palacios claims that "...in general, in the New Granadan provinces, and in marked contrast with the Venezuelan or Mexican [cases], aristocratic *criollos* never saw their class domination seriously threatened by popular pressure, [either] during or after the independence movement." According to Palacios, this meant that the competing regional powers were never compelled to work together as a class, ultimately discouraging national unification. See Palacios, "La fragmentación regional de las clases dominantes en Colombia: una perspectiva histórica," *Revista Mexicana de Sociología* 42 (October -December 1980): 1663-1689, 1664. As will be discussed shortly, more recent scholarship challenges the idea of apolitical popular actors in the nineteenth century.

sympathies and conflicting aims. Berquist described them as violent marauders, who executed scores of their perceived enemies throughout the country, and threatened the social order and elite control.¹⁹

With such devastating political, social, and economic consequences, it is easy to imagine why scholars point to the War as such a powerful impetus for elites to create the country's first power-sharing arrangement. Mazzuca & Robinson assert that a significant change in electoral policy in 1905 facilitated a peaceful transition and guaranteed political stability. Previously, Colombia's legislature operated under majoritarian rule – the party that won the most votes in an election was awarded all the congressional seats. Such dramatic power imbalances spurred losing parties to engage in violent opposition, Mazzuca & Robinson argue. After the War, Colombia adopted a proportional system. Regardless of the specific number of votes, the winning party was awarded two-thirds of the congressional seats, and the runner-up one-third. According to Mazzuca and Robinson, eliminating the “winner takes all” formula led Liberals to lay down their arms and work with Conservatives as a peaceful opposition party, ultimately ensuring economic, political, and social stability.²⁰ Herbert Braun, on the other hand, focuses on cultural aspects of power-sharing during this period, examining how the social lives of Liberal and Conservative elites intersected in a wide variety of venues, particularly in exclusive social clubs and cultural events. They moved in the same circles, discussed the same poetry, attended the same *tertulias* (salons), and listened to the same classical symphonies. (Braun points out that they also bonded over

¹⁹ Berquist, *Coffee and Conflict*.

²⁰ Mazzuca & Robinson, “Political Conflict and Power Sharing.”

their perceived racial superiority – slightly lighter skin and less African or indigenous facial features than the majority of Colombia’s *mestizo* population.) More importantly, they saw themselves as defenders of civility, as honorable men who were working together civilly to protect the nation’s political institutions, by keeping violent political expression and *caudillos* in check. This image of themselves as *civilistas* contrasted with their view of everyone else in society – “the pueblo.” To promote political civility and stability, these elites supported efforts to educate the *pueblo* and instill noble values of pacific participation in politics.²¹

However it was achieved, the first power-sharing arrangement in the twentieth century oversaw an important era of economic growth and political expansion in Colombia. Alternately termed the “Republic of Coffee” or the “Conservative Hegemony,” the legitimacy of the national state *vis a vis* regional power brokers grew exponentially.²² Increased revenues from coffee exports certainly played a crucial role. Equally important was the fact that coffee was truly a national industry. Unlike many

²¹ Braun, *The Assassination of Gaitán*; James Henderson also discusses elite bipartisanship during this period, and at one point, offers the example of the “Friend’s Club.” Although short-lived, it was an eclectic mix of younger members of the Liberal and Conservative parties who all “shared a commitment to material progress.” As Henderson noted, within their “luxurious confines...it mattered not that their ideologies were diametrically opposed.” See James D. Henderson, *Modernization in Colombia: The Laureano Gómez Years, 1889-1965* (Gainesville: University of Florida Press, 2001): 145. See also, Malcolm Deas, “Miguel Antonio Caro and Friends: Grammar and Power in Colombia,” *History Workshop* no. 34 (Autumn, 1992): 47-71. Efforts to “civilize” the masses took a variety of forms. Renán Silva discussed efforts to spread “high culture” through the newly established national radio service in the early 1930s, while Alberto Mayor Mora described efforts by antioqueño industrialists trained as engineers at Medellín’s School of Mines to discipline their workers not only on the factory floor, but also in how they used their time off work. See, Alberto Mayor Mora, *Ética, trabajo y productividad en Antioquia* (Bogotá: TM Editores, 2005, 4th edition); Silva, *República Liberal, intelectuales, y cultura popular* (Medellín: La Carreta Editores, 2005).

²² The “Conservative Hegemony” is usually dated from 1886 to 1930. But, as Marco Palacios and Frank Safford point out, this was hardly a single time period, punctuated as it was by the War of a Thousand Days, which brought significant changes and led elites to spurn violence and seek other means of governance. Moreover, “Conservative Hegemony” tends to conjure an image of strong church-state relations, and while those connections were strong, they were insufficient to stem the tide of full Colombian integration into the global economy, or the social and political changes that resulted. Thus, Palacios and Safford prefer the term “Republic of Coffee” (in contrast to the “Liberal Republic” which followed) as a more adequate label for the period. See Marco Palacios & Frank Safford, *Colombia: Fragmented Land, Divided Society* (New York: Oxford University Press, 2002): 266.

other agricultural exports in other parts of Latin America (or even Colombia itself, as the previous example of bananas attests), Colombians controlled their coffee trade. Thus, profits remained in the country. Moreover, numerous Colombians earned their livelihoods from it. Stevedores in the Pacific port of Buenaventura loaded it onto cargo ships while their counterparts in Atlantic ports unloaded the imports increased foreign revenues permitted; railroad operators carried it from the mountains where it was grown to the coast; transport workers on the Magdalena River brought imported goods to Bogotá, Medellín, and elsewhere; construction workers built and maintained the railroads and other freight transport systems; and innumerable small towns enjoyed increased commerce as coffee growers passed through on their way to the transportation hubs. But, most important of all was the dramatic increase in the number of growers. In the nineteenth century, large landowners dominated production. Coffee trees require several years after planting before they produce marketable beans, assuming there are no droughts, bad weather, or other natural disasters. To reduce their risks, large growers began encouraging smaller ones to produce it instead. They did so through contracts in which the large growers – now investors – provided seeds, some start-up capital, tools and pack animals, as well as pressure on the national government to make public lands available or to resolve land disputes between large landowners and small growers in favor of the latter. In exchange, small farmers settled new territories, planted coffee bushes and subsistence crops, and eventually returned a portion of their profits to the investors. The result was impressive: at the beginning of the twentieth century, there were approximately 750 coffee farms; thirty years later, in

1932, there were over 150,000. While some of these were large plantations, the vast majority were small farms of just a few acres.²³

This briefest of overviews only hints at the ways that the national state expanded because of coffee. For example, the geographic shift in coffee production from east to west in Colombia weakened Bogotá's traditional rivals in the south, the east, and the Atlantic coast. Although Antioquia and Greater Caldas (where elite coffee interests were centered) had also been a rival to Bogotá – a strong one, in fact, because of Antioquia's very lucrative gold trading in the nineteenth century (which ensured that regional state coffers often far exceeded those of the national state) – they did not continue the previous pattern of vigorously challenging Bogotá's hegemony. Instead, although maintaining a strong regional identity, elite coffee interests increasingly accepted Bogotá's legitimacy as the country's central power, evident in their reliance on it as the distributor of national lands, and the ultimate arbiter of land disputes between small growers and large landowners. In other words, expanding coffee production partly depended on the regulating powers of the national state in Bogotá. Moreover, in 1927, a group of elite coffee exporters formed the Coffee Growers' Federation (FEDECAFE) to protect the interests of small growers, the quality of the product they sold, and the commodity's position on the global market. FEDECAFE closely coordinated with the national state on a variety of matters, including trade policies,

²³ On the large growers *cum* investors, and the different ports through which goods were imported and exported, see Palacios, *Café en Colombia*, 283 and 414. On the statistical increase in small coffee farms, see, Diego Pizano Salazar, *El café en la encrucijada: Evolución y perspectivas* (Bogotá: Alfaomega, 2001): 11.

dispersal of export revenues, and eventually, negotiation of international coffee agreements.²⁴

Coffee increased economic stability and Bogotá's national hegemony in another important way. Some scholars assume that the Great Depression (and concomitant contraction of international trade) spurred Colombia to focus on industrialization, in order to ensure the availability of consumer goods. In reality, industrial production began long before the Depression. By the 1930s, in fact, Medellín's textile mills were already very well established. The same was true for beer, cigarette, candy, matches, soap, and candle manufacturers throughout the country, as well as producers of cement and sulfuric acid.²⁵ It was partly the massive economic growth stemming from the coffee trade that provided the financing for these industrial endeavors to begin.

From the perspective at the top, things seemed to be going very well. *Convivencia* was serving the interests of industrialists and coffee exporters alike, there was economic and political stability, major public works and infrastructural development were humming along, and relations with the United States had been normalized (helped along by a \$25 million dollar indemnity paid to Colombia for the loss of Panama).

²⁴ Persuasive analyses exist suggesting that in many ways, FEDECAFE itself became the Colombian state. Certainly, in remote coffee growing regions, where the national state presence was very faint, FEDECAFE's extension agents often became the only "official" agents with whom small growers interacted. See, Christopher London, "Cultural Politics of Technical Change in Colombian Coffee Production," Unpublished Master's thesis, Cornell University, 1994; London, "From Subordinates to Citizens: Development, Democracy, and Theory in Rural Colombia," Unpublished Ph.D. dissertation, Cornell University, 2002.

²⁵ Ocampo, *Historia económica*, 186-190; Palacios, *Café en Colombia*, 419-421; Thorp & Londoño, "The Effects of the Great Depression." Although the impact of banana production and oil extraction also played a role, the Atlantic coastal cities of Barranquilla and Cartagena also experienced a "boom" in industrial production of consumer goods and construction materials prior to the Depression. See, Eduardo Posada Carbo, "Progreso y estancamiento, 1850-1950," in *Historia económica y social del caribe colombiano*, ed. Adolfo Meisel Roca (Bogotá: Ediciones Uninorte, 1994): 229-284, 245-248.

From other perspectives, of course, things looked a bit different. The 1920s saw the flowering of a variety of popular protests and new political movements, particularly socialism. The labor movement gained strength and organized strikes demanding better wages and working conditions; urban residents protested the often-abysmal state of working-class neighborhoods, and public utilities and transportation; subsistence farmers and some small-scale coffee growers protested land tenure inequities or outright theft of their land and labor by large landowners hoping to expand banana or cattle production. This was the era of Maria Cano, a poet, labor organizer, editor of the magazine *El rebelde*, and co-founder of the Partido Socialista Revolucionario (PSR). In 1925, at a labor congress, she was named “la Flor del Trabajo” (“Labor’s Flower”).²⁶

Foment was also occurring at the top. Partisanship was not the primary issue, however. The conflict was generational. A mixed group of Liberal and Conservative politicians known as the “centenarios” – born in the late 1880s and early 1890s and emerging on the public stage around the time of Colombia’s centennial in 1910 – watched the popular uprisings around them and recognized that the dramatic economic changes of the previous decades had wrought significant social changes, changes with potential to upend the social order if nothing was done. Among themselves, they disagreed about the direction the country should go. Conservatives worried about the

²⁶ Mauricio Archila Neira, *Cultura e identidad obrera: Colombia, 1919-1945* (Bogotá: CINEP, 1991); Archila Neira, *Aquí Nadie es Forastero: Testimonios sobre la formación de una cultura radical: Barrancabermeja 1920-1950* (Bogotá: CINEP, 1978); Ann Farnsworth-Alvear, *Dulcinea in the Factory: Myths, Morals, Men, and Women in Colombia’s Industrial Experiment, 1905-1960* (Durham: Duke University Press, 2000); Henderson, *Modernization in Colombia*, 154-159; Catherine LeGrand, *Frontier Expansion and Peasant Protest in Colombia, 1830-1936* (Albuquerque: University of New Mexico Press, 1986); David Sowell, *The Early Colombian Labor Movement: Artisans and Politics in Bogotá, 1832-1919* (Philadelphia: Temple University Press, 1992); Renán Vega Cantor, *Gente muy rebelde: Protesta popular y modernización capitalista en Colombia (1909-1929)*, Vols. 1-4 (Bogotá: Ediciones Pensamiento Crítico, 2002). On Cano, see Henderson, *Modernization in Colombia*, 159, as well as a hagiographic portrait by her contemporary, Ignacio Torres Giraldo, *Maria Cano: Mujer rebelde* (Bogotá: Editorial La Rosca, 1972).

secularizing impact of capitalist modernity and called for a return to Catholicism.

Liberals celebrated the greater secularization and called instead for progressive types of reform to ameliorate some of the worst conditions under which popular classes labored and lived. Despite these different ideas, they were united in their criticisms of the older generation of *civilistas*, considering them out-of-touch and unaware. There was also growing discontent with what seemed to be too cozy of a relationship with the United States. Accepting the indemnity payment was criticized, as was the renewal and expansion of oil concessions. The burgeoning presence of U.S. business interests in different parts of the country (the banana and petroleum regions, specifically) sparked nationalist sentiment, which wildly ignited in 1928 after the Banana Massacre, in which President Miguel Abadía Méndez sent the Colombian army to put down a strike by United Fruit Company workers in Ciénaga, Santa Marta. An unknown number of workers were killed (estimates range from 47 to 2,000).²⁷

The combination of popular discontent, public outcry over the massacre, and the growing generational divide weakened the Conservative party's hold on power. In the 1930 election, the Conservative party could not agree on a candidate, and ultimately, two competing Conservatives ran in the election. Meanwhile, the Liberals named Enrique Olaya Herrera as their presidential candidate. He firmly believed in

²⁷ On the generational divide, see: Christopher Abel, *Política, iglesia y partidos en Colombia, 1886-1953* (Bogotá: FAES, 1987); Ricardo Arias Trujillo, *Los leopardos. Una historia intelectual de los años 1920* (Bogotá: Uniandes-Ceso-Departamento de Historia, 2007); Henderson, *Modernization in Colombia*; Christie, *Oligarcas, campesinos y política*, (particularly, chapter 5, "Leopardos y Nacionalistas: 'La vida era un poco de literatura'"); Luís Javier Orjuela, "Tensión entre tradición y modernidad (1904-1945)," in *Historia de las ideas políticas en Colombia*, ed. José Fernando Ocampo T. (Bogotá: Instituto Pensar, 2008). On the banana massacre, see: Bucheli, *Bananas and Business*; Henderson, *Modernization in Colombia*, 165-167; Eduardo Posada-Carbo, "Fiction as History: The Bananeras and Gabriel García Márquez's *One Hundred Years of Solitude*," *Journal of Latin American Studies* 30 (May 1998): 395-414.

partisanship and his politics were agreeable to the growing numbers of Conservatives dissatisfied with both of the other candidates. On February 9, 1930, he won a substantial majority of the vote, while the Conservative vote was split almost evenly.²⁸

Although the beginning of the “República Liberal” (1930-1946) starts with the election of Olaya Herrera, he was exceptionally moderate. His successor, on the other hand, was much more reformist and deeply partisan. Alfonso López Pumarejo came into office with strong popular support and immediately set about instituting his “Revolution en marcha” (Revolution on the March), which consisted a broad range of social, labor, agrarian, and constitutional reforms. Workers were guaranteed the right to strike. Personal income and domestic and foreign taxes were increased, which helped quadruple the national education budget. Property was declared to have a social function, which attacked the right of large landowners to hold enormous tracts of land without using them to produce either food or commercial crops, and opened the possibility for such unused lands to be redistributed among landless peasants. A variety of other reforms emboldened peasant and workers: during López’s administration the number of labor unions exploded and there were peasants and workers occupied the Congressional building demanding change.²⁹ Unsurprisingly, such radical and rapid transformation generated significant opposition. Already by the end of his first term, he was meeting more obstacles to his reforms, including from more moderate members of

²⁸ Henderson, *Modernization in Colombia*, 174-175.

²⁹ Henderson, *Modernization in Colombia*, 228-229; Richard Stoller, “Alfonso López Pumarejo and Liberal Radicalism in 1930s Colombia,” *Journal of Latin American Studies* 27 (May 1995): 367-397; Tirado Mejía, *Aspectos políticos*. Marco Palacios counters this view of López, suggesting that he actually passed fewer labor reforms than his predecessor and successor, Eduardo Santos. It only seems that López was a more aggressive reformer, because of the vitality of the labor movement during his first term in office. See Palacios, *Between Legitimacy and Violence: A History of Colombia, 1875-2002* (Durham: Duke University Press, 2006): 110-111.

his own party. By the time he was re-elected in 1942 (at the time, presidents in Colombia could not stand for consecutive re-election) the Conservatives had re-focused, regained some unity, and sharpened their methods of attack and opposition. A series of scandals further demoralized López, and he ended up resigning before his term was up.³⁰

Despite López's *Revolución en marcha*, he is not considered a populist leader. In Colombia, that title is reserved for his contemporary, Jorge Eliecer Gaitán. Twenty years younger than the *centenarios*, darker-skinned than the *civilistas*, born into poverty, and farther to the Left than even the most reformist of the Liberals (he briefly broke away in the early 1930s to form his own party, the National Leftist Revolutionary Union (UNIR) – Gaitán faced many obstacles to acceptance by party elites. But, he enjoyed the overwhelming support of popular groups – largely stemming from his “breakout” moment on the national stage in the wake of the Banana Massacre, when he riveted the nation with a powerful and moving speech calling for an investigation. Gaitán's oratory skills eventually grew to be legendary. Despite the disdain with which some elite party members held him, his popular support fueled his political rise, and he served in a number of public offices during the years of the Liberal Republic, including mayor of Bogotá (1936-1937), Minister of National Education (1940-1941), and Minister of Labor, Health and Social Welfare (1943-1944). In the 1946 election, in an echo of the Conservative split sixteen years earlier, the Liberal Party divided its support between two candidates – Gaitán and more moderate Gabriel Turbay. As can be imagined, this

³⁰ Henderson, *Modernization in Colombia*.

paved the way for a Conservative win. The following year, Gaitán became leader of the Liberal party and worked to shore up support for a more successful presidential run in 1950. But, long before that, on April 9, 1948, he was assassinated while walking down the street, returning to the office after lunch. His death set off a massive riot, known as the *bogotazo*, which destroyed much of downtown Bogotá. His death is also often counted as the beginning of *la Violencia*.³¹

But *la Violencia* began before his death, in 1946, and hence, an explanation of its origins and trajectory must be sought elsewhere. There are two primary schools of thought – one focused on socio-economic factors and the other on politics. Thus, for example, Keith Christie, in his examination of the origins of coffee production in Caldas, looks closely at the development of social classes and social stratification and comes to the conclusion that violence in the countryside was the result of the intrusion of capitalist modernization, but not because the *campesinos* were resisting modernization, but rather because capital was seeking ways to get them off the land.³² Christopher Abel and Javier Guerrero, on the other hand, emphasize political factors, focusing in particular on the disruptions caused by the transfer of power from the Conservatives to the Liberals and the role the church played in maintaining social order. They both maintain that during the Conservative Hegemony, the Church acted as the mediator between the elites and the popular classes, ensuring social order in a devoutly Catholic country. With increased secularization, and the reforms of Liberal

³¹ The most outstanding description of the events of surrounding Gaitán's assassination and the subsequent bogotazo is Braun's, *The Assassination of Gaitán*.

³² Christie, *Oligarcas, campesinos*, 228.

Republic, especially the increased role of the state in public education, the Church's power eroded and it lost the ability to ensure social control and prevent violence in the countryside.³³ Abel and Guerrero fill in the blanks and better explain *la Violencia* than an earlier study that, unfortunately, introduced a lamentable and long-lasting term that obscures understanding of the process of state formation in Colombia. In 1980, Paul Oquist argued that a strong state developed in Colombia in the early twentieth century (although he only described that state in relation to the urban residents and workers, overlooking the countryside). He further claimed that this state challenged the traditional hegemony of landowning elites (which contradicts the work of other scholars such as Delmar, showing that neither party had a monopoly on economic alignments, and ignores the fact that coffee production bridged rural, urban, and class divides). He further claimed that the emergence of partisan and intra-class conflict overwhelmed the state, leading it to "partially collapse," which created a power vacuum in the countryside, and allowed local conflicts, that the national state had been keeping in check, to erupt.³⁴

In contrast, Daniel Pecaú argued that the entire debate about whether a weak (or partially collapsed) state was the cause or the effect of *la Violencia* was ultimately a dead end. For Pecaú, violence and the state were one and the same, and could not be discussed separately. Moreover, he did not believe that one could study "the state" and "society" separately either; in his view, there was an essential relationship between

³³ Abel, *Política, iglesia y partidos*; Javier Guerrero, *Los años del olvido: Boyacá y los orígenes de la Violencia* (Bogotá: TM Editores, 1991).

³⁴ Paul Oquist, *Violence, Politics, and Conflict in Colombia* (New York: Academic Press, 1980).

them and it was possible to understand the former only by examining the latter. To this end, Pecaut focused on culture. These points are all well-taken. Unfortunately, his discussion of “culture” focused on how Colombia was not “cohesive” in comparison to European states – he argued that there were deep cultural divisions that cohered around party affiliation, which led to deep disunity and conflict.³⁵

Pecaut’s study was published in 1987 and was one of the last analyses of the *la Violencia* that assumed it was a unitary phenomenon in Colombia. Beginning in the 1980s, scholars recognized that there were tremendous regional and local variations in the course of *la Violencia* (and many places where there was no violence at all). After the publication of several regional studies, which looked at how national partisan conflicts interacted with local issues – social, cultural, economic, and political – scholars came to realize that it would be more accurate to speak of *las Violencias*.³⁶

In terms of state formation, two of those studies offer an intriguing contrast. Reinaldo Barbosa Estepa, in his analysis of *la Violencia* in the eastern Llanos, counters some of the most common ideas: that it was primarily about partisan politics or that it was a response to “capitalist penetration.” Instead, he recognizes the immanently local nature of forms of manifestations of violence. But, he makes it by relying on a notion of the state that does not allow for multiple interpretations or meaningful interaction

³⁵ Daniel Pecaut, *Orden y violencia: Evolución socio-política de Colombia entre 1930-1953* (Bogotá: Editorial Norma, 2001, 2nd edition (the first edition was published in 1987).

³⁶ Reinaldo Barbosa Estepa, *Guadalupe y sus centauros: Memorias de la insurrección llanera* (Bogotá: CEREC, 1992); James Henderson, *When Colombia Bled: A History of the Violence in Tolima* (University: University of Alabama Press, 1985); Carlos Miguel Ortiz Sarmiento, *Estado y subversión en Colombia: La Violencia en el Quindío, años 50* (Bogotá: CIDER, 1986).

between national state agents and local residents – interaction which is usually mediated by regional or local representatives of the state:

“Colombia is a country of regions, and each one of them has followed a unique process of socio-economic development; for that reason, elements of ‘the national’ that organize, unify, and cohere them are lacking. In the orbit of the masses’ common sense there is no clear concept or category of either the Nation or the State: they both are confused with the organism that executes the function of government; thus, the words of the local parish priest or political boss are taken more seriously.”³⁷

“Confusing” the nation and the state with the organisms that “execute the government’s functions” is precisely how the process of state formation works, according to the well-known Joseph & Nugent volume previously mentioned.³⁸ Carlos Miguel Ortiz Sarmiento, in contrast, prefigures the notion of state formation as a process of constant negotiation of rule in his analysis of violence in the Quindío. He examines how the breakdown of existing social structures manifested itself as the loss of land by landowners with large plots, at the hands of “astute” local residents who took advantage of the chaos to enlarge their property holdings, and in the process further disrupting local patterns of social control. From this he concludes that the concept of collapse is not helpful for understanding violence or the state in Colombia. As he notes,

³⁷ Barbosa Estepa, *Guadalupe y sus centauros*, 75.

³⁸ Joseph and Nugent, *Everyday Forms of State Formation*. Claudio Lomnitz discussed similar processes several years later in an overlooked essay in which he criticized Benedict Anderson’s notion of nationalism as a process of forming bonds of fraternity. While Anderson’s idea of the “imagined community” de-emphasized the role of daily, individual interaction with others who shared your language or read the same newspapers, Lomnitz argued that adherence to the idea of the nation came through everyday interactions with local representatives of state power (such as registering births, marriages, and deaths, or applying for driving licenses or passports). These acts formed “bonds” to the nation-state – dependent bonds, as individuals recognized the authority of the state to govern their daily lives and existence. See Claudio Lomnitz, “Nationalism as a Practical System: Benedict Anderson’s Theory of Nationalism from the Vantage Point of Spanish America,” in *The Other Mirror: Grand Theory through the Lens of Latin America*, eds. Miguel Angel Centeno and Fernando López-Alves (Princeton: Princeton University Press, 2001).

the state is “always in a state of collapse.”³⁹ This, of course, is essentially the same thing as saying that it is always in a process of formation (depending on whether you see the glass as half-full or half-empty).

As crucial as the connection between violence and the state may be, however, there is a major problem. Ultimately, the question of violence obscures processes of state formation. Explaining complex and diverse forms of violent conflict is the object of study, rather than the historical formation of the Colombian state. The presence of a variety of armed actors in contemporary Colombia – guerilla organizations, military and paramilitary forces, and drug traffickers and other criminal groups – and the tremendous rates of displacement resulting from their activities certainly make understanding violence and its causes a crucial historiographical and contemporary question. But, James Scott reminds us of why it is important to think about violence as one aspect of state formation in Colombia, but not the only one: peasants are not always in a state of rebellion, he informs us, and yet, scholars tend to focus on them precisely at the moment when they engage in violent resistance or attacks. And yet, even understanding why they decide to rebel cannot be done without first fully examining the social, economic, and political conditions during times when they were not rebelling. It is only then that we can understand how their conceptions of fairness, justice, and legitimate authority factor into a decision to take up arms.⁴⁰

Similarly, in Colombia, we can learn a great deal of state formation when we expand our focus to include more than violence. Such is the case in one of the most

³⁹ Ortiz Sarmiento, *Estado y subversión*, 325.

⁴⁰ Scott, *Moral Economy of the Peasant*.

insightful regional studies of *la Violencia*. Although Mary Roldán sets out to explain the origins of violence in the department of Antioquia, she uncovers a number of actors condemning acts of violence and striving for peaceful co-existence – actors who saw violence by the state not as necessary means to ensuring partisan spoils or social control, but rather as acts that de-legitimized the authority of the state.⁴¹ And they expressed these sentiments despite the fact that both the national and regional states had only a marginal presence in their lives and communities. How individuals who live in remote areas with an ephemeral state presence can nevertheless see themselves as citizens of that state and subject to its authority – prior to the outbreak of violence – is a crucial question that remains poorly studied in Colombia.⁴²

Wheat Production in Mid-Twentieth Century Colombia: An Overview

To understand the dynamics of wheat production in Colombia, one must first begin with geography. Colombia is broadly divided into four major zones – the central highlands of the Colombian Andes, the tropical regions of the Atlantic coast, the Amazon rainforest in the southeast, and the expansive plain east of the highlands, known simply as the *llanos*. These divisions are artificial, of course, as there are

⁴¹ Mary Roldán, *Blood and Fire: La Violencia in Antioquia, Colombia, 1946-1953* (Durham: Duke University Press, 2002): 164.

⁴² Alberto Flórez Malagón takes a different approach to the question of violence in Colombia, but ultimately leads us to similar questions of how the state was formed in the absence of violence. He examines the local myth of one town in Cundinamarca – Ubaté, a large wheat-growing region, in fact – which emphasized that during *la Violencia*, it was an “island of peace in a sea of blood.” Examining judicial records, and letters and petitions to various state agents, he discovers a group of diverse citizens, with different party affiliations and social positions, who nevertheless believe that the state is a legitimate and just authority and who, moreover, see it as independent of political parties (which counters much of the earlier narrative on the partisan origins of *la Violencia*, in which the conflicts were largely about patronage and partisan control of state jobs). See, Flórez Malagón, “Una isla en un mar de sangre.” *El Valle de Ubaté durante la Violencia, 1946-1958* (Bogotá: La Carreta, 2005).

significant climatic differences within each one. The “central highlands,” for example, consist of three separate mountain ranges separated by long, meandering rivers and flood basins. For most of the twentieth century, the central range (“cordillera central”) was the heart of coffee production in Colombia, while the eastern range (“cordillera oriental”) has seen its agricultural production evolve from coffee to wheat and barley and later to cattle, potatoes, and cut flowers. This is also the site of the country’s capital, Bogotá. Regional political units in Colombia are known as “departamentos” and two of three main 1950s-era wheat-producing *departamentos* – Cundinamarca and Boyacá – are located in the *cordillera oriental*. Much of the wheat production occurred there on a large high-altitude plateau known as the Bogotá Savannah (“Sabana de Bogotá”). All three of Colombia’s Andean mountain ranges converge toward the southwestern part of the country and this is where the other wheat-producing *departamento* – Nariño – is located.

Wheat had been produced in Colombia since colonial times. It was, in fact, shortly after the Conquest that wheat production began, and to this day, *boyacenses* and *nariñenses* (residents of Boyacá and Nariño, respectively), proudly claim that it was first introduced in their region. Production continued on a limited scale in some regions, such as the coast, and more widespread in others, particularly Boyacá and Santander until the independence era in the early 19th century, when, the story goes, a particularly virulent strain of wheat rust from Ecuador traveled north and dramatically diminished production for the next several decades. By the early 20th century, production had resumed in the central highlands, shifting from Santander to Cundinamarca, while Boyacá steadily regained its status as the top wheat-producing region. Complementing

domestic production was the growth of wheat imports from the United States. In fact, one of the earliest regional conflicts focused on wheat was related to those imports.⁴³

This conflict would echo later ones, in that it centered on transportation costs and production levels. The steep and broken slopes of Colombia's central highlands had long been the cause of the country's transportation difficulties. Only approximately 420 miles separate Bogotá from the Atlantic coast, for example – a relatively short distance. But, during some seasons of the year, traveling from Bogotá to the coast could take up to 100 days. Road building had barely begun even by the 1920s and it wasn't until the 1950s before it truly became a national priority. Water transport was the more common method of transportation in the 19th and early 20th century and one of the most important stops on the Magdalena River that connected the interior of the country to the coast was a small town called Puerto Berrio. In 1911, a national legislative decree ordered that millers on the coast pay a "transit fee" of eight cents (payable only in gold coin) per kilo of wheat that was transported through Puerto Berrio on its way from the central highlands to the coast. While this was a burden for those millers, the ready availability of imported wheat from the United States softened the negative impact of

⁴³ Alfredo Eraso E., ed., *La historia del trigo en Colombia* (Pasto: FENALCE, 2004); Ricardo Arroyo A., "Pasto pionero de la industria harinera de Colombia," *Cultura Nariñense*, No. 41, (November 1971): 30-34; Enrique Omar Trujillo Peralta, *El trigo en la época colonial: técnica agrícola, producción, molinos y comercio* (Cali: Universidad de San Buenaventura, 1990). Also, many of the primary sources under review tell this same story of the "virulent" strain of rust attacking wheat and decimating its production in the early nineteenth century. However, this version of events is questionable. First of all, many of the sources are confusing on this point. They give the impression, for example, that there was practically no wheat being produced at all in the 19th century and only extremely limited production in the early 20th. But suddenly, in 1949, Colombia was producing approximately 140,000 tons a year. Colombia's wheat breeders, and the Rockefeller Foundation frequently referred to those production numbers, often to justify the work they were doing to both American and Colombian critics –claiming that 140,000 tons was the baseline production when wheat breeding began in earnest. But if production had died off, where did these 140,000 tons suddenly come from? The fact that many of these statements about the dearth of production in the 19th and early 20th centuries come from the agronomists and wheat breeders themselves, suggests that they were constructing a myth about themselves and their role in twentieth century Colombian wheat production. Moreover, in other instances, they discussed the varieties "traditionally" grown in Colombia, which suggests some level of production beyond a minimal one.

this decree. In face, it was cheaper for coastal millers to import wheat from the United States than to pay the transport costs from the interior of the country. Unfortunately for the millers, several months later the Colombian Society of Agriculturalists (Sociedad de Agricultores de Colombia – SAC), the most important agricultural lobby in the country at the time, approved a proposition at its annual Congress in Bogotá that called for Colombia’s national legislature to modify import duties. The proposed changes included increasing current import tariffs by four-cents (also payable only in gold coin) per kilo of imported wheat, as well as an additional 2% added onto the currency conversion rate.⁴⁴

Coastal millers organized to mount a defense, beginning with a forceful editorial in a local newspaper. Titled, “Injustices against the Coast; Malicious System; Our Import Tariffs – How They Protect the Residents of the Interior and Harm those on the Coast,” the millers emphatically stated that if such a measure were put into place, it would mean the “complete destruction of the Atlantic Coast milling companies.” Warning that the patience of the people on the Coast was wearing out, they hinted at the flour shortages that would follow the implementation of such a measure:

If what they hope to achieve is to oblige the milling companies on the Coast to utilize wheat grown in the interior, [well] – it’s an absurdity and proof that the members of the Agricultural Congress don’t know a thing about wheat consumption. Can Cundinamarca and Boyacá possibly provide the 25,000 tons [of wheat] that the mills of Barranquilla and Cartagena consume on an annual basis?⁴⁵ These mills have a daily flour production of 2,500 *arrobos*. Can enough wheat be brought from the interior to satisfy such production levels? Of course not. And can the bags

⁴⁴ Jesús Antonio Bejarano, *Economía y poder* (Bogotá: Fondo CEREC, 1985); Unsigned editorial, “Injusticias contra la Costa,” *El Porvenir* (de Cartagena), No. 4000, July 13, 1911.

⁴⁵ Barranquilla and Cartagena are the two largest port cities on Colombia’s Atlantic coast.

required to move such quantities be made in the interior? And how much more will that add to the price per bushel in Barranquilla and Cartagena? As cheap as it might be, it will never be the same of that which we import from the United States.⁴⁶

Moreover, the millers complained, the large sums they had already paid in transport fees weren't even being used for their intended purpose – maintain dredging operations to ensure better transport. Ultimate blame, however, if the proposal was enacted, lay not with the SAC, but with the national legislature; the millers bitterly lamented that if legislators “do not want to protect us, they should at least not be hostile to us and neither should they put up obstacles for the incipient industries established on the Coast.”⁴⁷

Patriotic language infused the millers complaints, which continued for the next several months. “We have always dreamed of seeing Colombia become a grand and progressive country,” they declared at one point, for example, and at another asked: “What is the patriotic or fiscal purpose that [the highland agriculturalists] pursue with this recommendation?” They derided the Puerto Berrio tariff, asking: “Has any Nation on earth ever established tariff duties between different regions of its territory?” Poor production methods and their effect on prices were also criticized:

The wheat produced in the interior is insufficient to meet the consumption needs in those regions [Boyacá and Cundinamarca] and production there, according to data published by the Central Bank, instead of increasing, is decreasing; and if previously the harvests returned forty to one, now they only produce fourteen to one owing to the fact that the land is still cultivated using primitive methods and until today nobody has bothered to try to use modern machinery and equipment. [Thus,] being that wheat

⁴⁶ “Injusticias contra la costa,” *op. cit.* An “arroba” was a Spanish and Portuguese unit of measurement approximately equivalent to 25 pounds.

⁴⁷ *Ibid.*

production is so low and the price of flour in the interior so elevated...how high could the price reach on the Coast?⁴⁸

Despite their complaints, the wheat protectionist policies, first established in 1905, remained in place. It was not until serious wheat scarcity in the 1920s spurred the Conservative government to institute the Emergency Law ("*Ley de Emergencia*") eliminating import tariffs that millers were able to obtain wheat at what they considered to be reasonable prices.⁴⁹

And while the *Ley de Emergencia* ensured that bread was more widely available in the cities, it also had precisely the effect that Conservative protectionists had feared all along: imported wheat flooded the market and threatened to put domestic wheat producers out of business.⁵⁰ This time it was the SAC's turn to complain. Making their case in the pages of the *Revista Nacional de Agricultura* (RNA), the Society's monthly magazine, they argued that the use of "extremely powerful machines" on tracts of land surpassing "100,000 acres," made the cost to produce wheat twenty times cheaper in the United States. Moreover, the recent elimination of the prohibitive import tariffs ...[had deluged] the market with cheaper imported wheat.⁵¹

A hint that millers and bakers in Colombia had begun to change their productive processes, or at least the kinds of products they sold to Colombian consumers, is evident in the SAC's acknowledgement that price was not the only reason that millers chose imported flour:

⁴⁸ Unsigned editorials: "Hostility Directed to the Coast," *El Comercio*, No. 829, July 28, 1911; "El Congreso Agrícola y la Costa," *Barranquilla Comercial*, No. 4, August 18, 1911.

⁴⁹ Bejarano, *Economía y poder*, 138.

⁵⁰ Ibid.

⁵¹ "Rafael Flórez, "El problema del trigo," *Revista Nacional de Agricultura* (hereafter RNA) 14 (March-April 1929): 76-79.

[Colombian] bakers preferred [American flour]...as it more easily produced fluffier bread, due to the potato starch it contained, even though this reduced the bread's quality, and was less hygienic and nutritious, something which was not tolerated in other countries that sold bread by weight and not volume."⁵²

This early salvo in the "quality wars" that occurred several decades later also demonstrates the fluidity of the term "quality" itself.

It was also at this time that the SAC began its own efforts to improve agricultural production in Colombia. The SAC had long promoted a variety of programs to increase technical knowledge, including cooperative efforts with national and departmental level agencies to establish agricultural schools and to disseminate information through the RNA and other regional newspapers and newsletters. But in January 1929, the SAC went a step further. That month, the SAC made an announcement in the *RNA* that new varieties of imported wheat, barley and grass seeds were available at the Society's main office in Bogotá.⁵³ Two months later the *Revista* reported that over 190 farmers had collected a free sample – over 90% of them from Cundinamarca.⁵⁴ The *Revista* never reported on the ultimate fate of these new varieties, but it is noteworthy that they distributed them among farmers in Cundinamarca in the first place.⁵⁵

Throughout the 1930s and into the early 1940s, the SAC continued to promote the use of domestically produced grain (see figure 3). Of course, the decrease in global trade during World War II cut off many typical supply routes, and the post-War years saw the U.S. sending much of its grain to Europe to help with the reconstruction efforts.

⁵² Ibid.

⁵³ "Distribución de Semillas," *RNA* 14 (January-February 1929): 47.

⁵⁴ "Distribución de Semillas," *RNA* 14 (March-April 1929): 94-99.

⁵⁵ Bejarano, *Economía y poder*.

While one might think that this would benefit wheat producers, millers continued to focus their efforts on increasing grain importation rather than promoting domestic production. By 1949, millers' warned of impending shortages that could only be avoided if they were granted more generous terms on their import licenses. The SAC countered that such a request should be denied, arguing that the only sure way to avoid shortages in the future was for the government to invest in experiment stations devoted to wheat. Endeavoring to give more weight to their suggestion, the SAC outlined a comprehensive plan for developing these stations that included sections on genetics, soil science, climatology, entomology and statistics, among others. Such research was necessary, the SAC pointed out, because, while,

“...in other areas of science, the experience obtained in other regions of the world can be imported without any modification whatsoever, this is not possible for agriculture. A wheat variety that achieved magnificent results in the United States or Canada could fail completely in Colombia.”⁵⁶

At the very time that the SAC was making its recommendations for improved research and experiment stations focused on wheat, the Colombian government was in the final stages of negotiating a cooperative agricultural research program with the Rockefeller Foundation. Negotiations for this program had begun in 1948 under the Conservative administration of President Mariano Ospina Pérez and was signed in December 1949. The program officially began in 1950 and continued until 1967, years of tremendous upheaval in Colombia – the continued *Violencia* in the countryside, the emergence of guerilla groups in some parts of the country, the political repression of the

⁵⁶ “Fomento del Trigo,” *RNA*, no. 527 (March 1949): 23-26.

Laureano Gómez presidency, the military dictatorship of General Rojas Pinilla, and the beginning of the National Front – a power-sharing arrangement agreed upon by the two major parties as a way to quell the partisan battle lines on which *la Violencia* had been drawn.

The Colombian Agricultural Program (CAP), as the Rockefeller Foundation (RF) referred to it, was focused on the country's staple crops: wheat, corn, rice, potatoes, and beans. The stated goals of this agreement were two-fold: 1) develop a group of highly trained agronomists who would be intellectually equipped to carry on the breeding work in Colombia after the Foundation had left; and 2) strengthen the existing agricultural institutions and help to create new ones to fully meet the growing nation's needs. Fortunately, both of these goals meshed well with the distinct, but not conflicting, goals of the Rockefeller Foundation and the Colombian government. After more than two decades of work on public health in Latin America and other parts of the world, the Rockefeller Foundation shifted its focus to agricultural production, with the goal of eradicating global hunger by developing the "miracle seeds" that would dramatically increase the world's overall food supply, and especially in the developing parts of the world where it was most needed. While feeding a growing urban population was clearly a goal of the Colombian government as well, its larger goal for the cooperative program was connected to the ISI policies of substituting imported agricultural products for domestically produced ones and thereby achieving greater self-sufficiency in meeting its food needs. Again, these goals are not necessarily contradictory, but they are distinct. Interestingly, as the years of the cooperative

program went by, the American agronomists, breeders and officers of the Rockefeller Foundation living in Colombia increasingly adopted self-sufficiency as a goal for themselves as well.⁵⁷ Arriving in Colombia after several years of similar work in Mexico, the Foundation's breeders brought with them 1,100 lines of wheat and could begin the crossing and breeding process much more quickly in Colombia than they had been able to do so in Mexico. This meant that within five years the CAP had already developed two new, improved varieties and had begun the process of multiplying and distributing them to Colombia's wheat farmers.

At the same time, millers and bakers were moving even further from the milling and baking techniques inherited from the colonial era. By the 1960s, industrialized mills in the both the "wheat producing zone" (Cundinamarca, Boyacá, and Nariño) and the "non-wheat producing zones" (Medellín, Cali, and the Atlantic Coast) were capable of grinding 371,712 tons of grain per year, while the more traditional mills were could only grind 73,184 tons.⁵⁸

Similarly, Colombia's bakers had also undergone some degree of technification as well. A 1964 study on the baking industry conducted by the Institute for Technological Research, in conjunction with the Colombian Technical Assistance Program for Small- and Medium-Sized Businesses (a program supported by the Special Fund of the United Nations), noted that the largest problem bakeries faced was the

⁵⁷ E.C. Stakman, Richard Bradfield & Paul C. Mangelsdorf, *Campaigns against Hunger* (Cambridge: The Belknap Press of Harvard University Press, 1967). See also, Marcos Cueto, ed., *Missionaries of Science: The Rockefeller Foundation and Latin America* (Bloomington: Indiana University Press, 1994).

⁵⁸ "Estudio sobre los molinos del trigo del país," Contribución del Instituto Nacional de Abastecimientos al Congreso Triguero, Bogotá, Diciembre de 1964.

“deficient and variable quality of the flours made from domestically-grown wheat.”

Scarcity was also an issue, although apparently not as problematic as the poor quality of the flour. Why does this indicate that some degree of technification had occurred? Soft wheat varieties had difficulties withstanding the intense grinding processes of industrialized milling. In Colombia, all of the “traditional” wheat varieties were soft ones, and the first two “improved” ones developed in conjunction with the Rockefeller Foundation were also soft varieties. It wasn’t until 1959 when the first improved hard variety became available. Thus, the fact that in 1963, Colombia’s bakers were complaining about the quality of Colombian-produced flour is a strong indicator of technological change. This is especially so if one considers that the remaining pages of the IIT report devoted considerable space to arguing for increased imports. In previous years, millers’ and bakers’ arguments for increasing wheat imports centered on price and availability. But by 1963, they spoke of “quality” – a dramatic shift.⁵⁹

Of course, at this point, before discussing the specific criticisms lobbed at Colombian wheat, it’s necessary to go on one more detour and take a look at the role of the U.S. P.L. 480 program. As indicated earlier, the combination of the emergence of wheat breeders dedicated to developing ever-improved super-high-yield varieties, as well as the industrialization of flour production led to dramatic increases in U.S. wheat output by the late 1940s. Ultimately, this led to the problem of surplus grain sitting and potentially rotting in U.S. silos. In the immediate post-War era, this was not a serious problem, as much of the grain was shipped to Europe as part of the Marshall

⁵⁹ Instituto de Investigaciones Tecnológicas, *La industria de panificación* (Bogotá: IIT, 1964).

Plan's reconstruction efforts. But, within a few years, wheat production was restored in Europe and such shipments were no longer necessary. To appease mid-West wheat growers, Congress passed Public Law 480 in 1954. From the beginning it was conceived of as a foreign assistance program and worked in the following manner: excess grain produced in the United States was made available to underdeveloped countries at a price set by the United States (determined through a complicated formula based on the theoretical price of the grain had it been sold in a free and open market). Countries who purchased this grain entered into a contract with the United States which obliged them to buy it at that set price. They purchased this grain using their local currencies, which would be held in special accounts by the U.S. Department of State. These currencies were to then be dispersed back to the countries in question for development projects approved by the U.S. government, particularly projects designed to promote industrialization. The core philanthropic idea behind the program was that the countries that purchased such grain saved money for important development projects in several ways: 1) they did not have to make the expenditures necessary to produce grain themselves, thus freeing up funds for other development goals; 2) they did not have to use limited foreign exchange in order to purchase grain, but could use their local currencies instead, again, freeing up the foreign currency for use in other projects; and 3) they ultimately did not actually "spend" anything at all for the imported grain, as the local currency used to "purchase" the grain would be held in a special account, to be dispersed for their development goals.

This rather benign description clearly belies a number of serious problems with this program. The first problem, as Theodore Schultz pointed out in 1960, was with the fact that there was so much excess grain in the U.S. to begin with. As Schultz indicated, the surpluses did not “...spring out of the vagaries of weather or out of fluctuations in demand, nor [were] they caused by the slow economic growth of poor countries. They [were] a conspicuous consequence of U.S. technological and price policies.”⁶⁰ For Schultz, the real solution lay not in “rationalizing farm surpluses into international assets,” but in changes to policies regarding supply, including controls on the amount of grain produced every year. However, Schultz was also sage enough to realize that for a variety of reasons, mainly entrenched agricultural interests, this was unlikely to happen.

Beyond the existence of surplus grain, there were other problems with this program. One was that the U.S. government set the price of the grain based on an obscure formula that ensured it would be sold at a price higher than that of the global wheat market. And unlike an open market, in which buyers could have bargained for better offers or shopped around for a better deal, participating countries were contractually obliged to purchase the grain at the set price. In addition, much of the local currency held by the State Department was never dispersed back to the countries in question. In some cases, several years worth of these currencies were held by the U.S. government. As another contemporary analyst pointed out, “the reason our

⁶⁰ Theodore W. Schultz, “Value of U.S. Farm Surpluses to Underdeveloped Countries,” *Journal of Farm Economics* 42 (December 1960): 1019-1030, 1020.

foreign currencies are accumulating is that we cannot easily reach agreement with recipient countries on specific projects for which we will extend loans or grants.”⁶¹

Finally, in addition to these more short-term problems there was a significant long-term one that was discussed at great length by a number of contemporary observers, as well as the some individuals at the Rockefeller Foundation and the Colombian Ministry of Agriculture. The great fear of many economists and other analysts was that the recipient countries would come to view these sales as permanent and would therefore fail to invest in their agricultural industries, thus leaving them vulnerable to more severe food shortages in the future, when excess grain production in the U.S. may have leveled off and be less readily available. Even worse was the thought that the introduction of imported grain would inhibit the sale of locally produced grain and depress local agricultural markets.

And that begs an important question. Colombian millers, American wheat-growers, USDA representatives, and U.S. agricultural attachés generally agreed that the quality of Colombian wheat was consistently bad. Colombian wheat growers, breeders, agricultural lobbies, and Ministry of Agriculture officials and American scientists working for the Rockefeller Foundation in Colombia consistently agreed that the quality of Colombian wheat was comparable to that of the U.S., and in some cases, superior. What is certain is that by the 1970s the use of domestically-grown wheat in Colombia diminished drastically, and by 1980, Colombia was importing almost 90% of

⁶¹ R.O. Olson, “Discussion: Impact and Implications of Foreign Surplus Disposal on Underdeveloped Economies,” *Journal of Farm Economics* 42 (December 1960): 1042-1045, 1044.

the wheat it consumed.⁶² Why? Was it that Colombian wheat varieties really weren't that good? Or could it be that the availability of cheaper imported grain led to a negative publicity campaign against Colombian wheat? What would have happened if Colombia's wheat breeders had had the opportunity to freely spend another thirty years developing a diverse array of wheat varieties adapted to Colombia's growing conditions – the opportunity that U.S. wheat breeders had had in the United States in the early part of the twentieth century? Was Colombia a place where wheat really just couldn't be grown? Or did P.L. 480 help to construct it as such? The following chapter will examine competing ideas about the quality of Colombian wheat varieties.

⁶² Salomon Kalmanovitz, *La inversión extranjera en la agro-industria colombiana* (Bogotá: UNAL, Facultad de Ciencias Económicas, Departamento de Economía, 1980).

CHAPTER 2

“As If They were Native Plants”: Agronomy and Empire in Colombia, 1945-1955

René Hauzeur had an unusual idea for providing enough food for Colombia in 1945: the country should grow rye. Arguing that it was one of the only two cereals suitable for making bread due to its gluten content, he lamented that it was practically unknown in Colombia. Although the Ministry of Industries had introduced rye seeds in 1928 and two of Colombia's most dedicated agronomists, Antonio Miranda and Manuel Flórez Umaña, had seen how important its cultivation was in Europe during a tour there, it had never taken off on either a large- or small-scale. The only person who had ever promoted its production was Hauzeur himself, when he had been in charge of Cundinamarca's Office of Agriculture and Cattle-Raising. Insufficient seed supplies and financial resources precluded his success. By 1945, rye was only grown on a very small-scale in Chocontá, a municipality of Cundinamarca, and on Flórez Umaña's farm in Boyacá.¹

But what was so special about rye? For Hauzeur, it was not solely that its gluten content was comparable to wheat. More importantly, it grew well in the sandy, alkaline soils characteristic of the Sabana de Bogotá. He argued that it was far better suited to Colombia's soil conditions than wheat. Unfavorably comparing Colombia's soil to that of the Western Hemisphere's powerhouse wheat producers – the United States and

¹ René Hauzeur, “El cultivo del centeno resolviera el problema de la harina,” *Agricultura Tropical* (hereafter AT), Vol. 1 (March 1945): 11-15. Colombia's political divisions are called “departments.” Cundinamarca is in the geographic center of the country, and is the seat of the nation's capital, Bogotá. Boyacá is a neighboring department and is also located in the country's eastern mountain range known as the “cordillera oriental.”

Argentina (oddly overlooking Canada) – he claimed that rye was “the cereal of poor soils” and it was precisely for that reason that the United States and Argentina had not developed any strong centers of rye production. Since they had excellent growing conditions for wheat, they naturally focused on that crop. The “ample fertility” of their soils, in fact, “sometimes led to an overproduction that was detrimental to the crop’s economy.” For Hauzeur, this contrasted sharply with Colombia, which did not have the rich soil, suitably flat topography, or sufficient availability of fertilizers to successfully provide the wheat its populace needed.²

Rye, on the other hand, was perfectly suited, and only required minimal conversion of milling equipment and moist (rather than dry) yeast, something the nation’s yeast manufacturers could easily produce, he claimed. Moreover, as Colombia’s soils were particularly suited for rye, farmers could plant more seeds per hectare than were normally planted in Europe, and achieve higher production while using less land. Hauzeur further bolstered his case by adding that rye was equally as nutritious as wheat, that it could be cultivated with already-available farm equipment, and that rye flour produced as much bread as wheat flour.³ Moreover, it would strengthen the national economy: if the country succeeded in growing rye, it could “avoid the migration of Colombian capital to foreign wheat markets and provide well-paid jobs to Colombian workers and farmers.”⁴

² Ibid., 11-12.

³ Ibid., 12.

⁴ Ibid., 13-15.

Hauzeur acknowledged that the nation's wheat promoters and its consumption habits might present serious obstacles to such a dramatic shift. As if to demonstrate that resistance, the editors of *Agricultura Tropical*, where Hauzeur's article appeared, added a short note indicating that while they agreed in principle that rye was a "potential" crop for the sandy and acidic soils of Colombia's cold highlands, they did not "believe it was appropriate for official or private entities to publicly promote rye cultivation on a commercial scale" until several issues were worked out first. These paralleled issues Colombia's wheat farmers already faced, and included: 1) assurance that there would actually be a market where rye farmers could profitably sell their harvests; 2) establishment of mills designed to handle rye; 3) systematic experimentation to develop varieties for Colombia's diverse growing conditions; and 4) evidence based on "scientific, systematic, and continuous research" that Colombia's high-altitude regions could grow rye commercially. If those questions were ever resolved, the editors claimed that they would readily join a campaign to promote rye production.⁵

In the end, rye never became an important crop in Colombia. Yet this proposal, a chimera though it may have been, was more than simply a minor episode in the history of Colombia's economic development. On the contrary, it sits at the center of a fundamental problem Colombia faced at mid-century: how does a country with limited financial resources successfully defend itself from predatory trade policies veiled behind scientific discourses designed to hinder the achievement of national agricultural self-sufficiency goals? More specifically, how does a Latin American country attempting

⁵ Ibid., 15.

to balance a variety of voices divided over the question of whether wheat should be imported or grown nationally respond to discourse emanating from the United States attempting to rigidly construct the globe into two zones – the temperate, wheat-producing (and exporting) countries, and the tropical, wheat-importing ones?

In the wake of the market disruption caused by the Great Depression and World War II, the Colombian state turned away from its previous economic model based on export agriculture and instead protected the growing industrial sector through policies restricting imports on manufactured consumer goods and some agricultural commodities. Wheat was one of the food crops that many Colombians hoped to substitute with nationally grown grain.⁶ At the same time, in the United States, despite the Depression and the diversion of resources toward the war effort, wheat production had been steadily increasing, due to a combination of accelerated mechanization, use of genetically “improved” seeds, application of fertilizers, pesticides and other chemical inputs, increased land concentration, and various forms of governmental subsidies.⁷ By 1945, although the world apparently faced a global wheat shortage, the United States Department of Agriculture (USDA), already looking ahead to a near future when global production would increase, worried about maintaining markets for its looming wheat surplus. Discouraging countries such as Colombia from developing its own wheat production was one of the strategies employed to ensure a steady market.

⁶ Kalmanovitz and López Enciso, *La agricultura colombiana*.

⁷ Dennis S. Nordin & Roy V. Scott, *From Prairie Farmer to Entrepreneur: The Transformation of Midwestern Agriculture* (Bloomington: Indiana University Press, 2005).

In this project, scientific discourse readily intersected with economic policy. Particularly in the Colombian case, efforts to divide the globe into wheat-exporting and importing zones met with a welcome reception by groups opposed to increasing national production. Thus, economists combating protectionist policies in general and millers who preferred cheaper imported grain over the more expensive national product quickly adopted and espoused the idea that a country such as Colombia, located in the tropics, was unsuitable for growing wheat. Agronomists, on the other hand, tended to dismiss the argument that wheat was a temperate-climate crop and insisted that the nation could become self-sufficient in that grain – as long as the national government supported the research necessary to develop apt varieties and implemented trade and price policies beneficial to the nation's wheat growers. Hauzeur was one of the few agronomists who believed that Colombia could not grow wheat. That his was a minority view among his colleagues was evident in the editorial note accompanying his article.

Attempts to construct Colombia as either a wheat producing or non-producing country also lie at the center of a problem in the history of science. Currently, North American historiography on agronomy in twentieth century Latin America conceives of two time periods, with somewhat contradictory themes. The first is the period between 1870-1930, during the golden age of Latin America's export-focused economic development. Spurred by the desire to increase production, combat pests, and ensure standard quality in export crops such as coffee and sugar cane, large-scale landowners and planters supported agricultural research and the creation of schools of agronomy.

Although agronomists relied on imported scientific knowledge and techniques, they interpreted it within their own context, devising what one scholar termed “creole science,” focused on finding technical solutions to national agricultural problems through basic research on a handful of crops.⁸ In this period, politicians, planters, and agronomists are described as having very different ideas about the role and usefulness of science. Politicians believed that it could help solve potentially disastrous economic and social problems in the countryside. Planters believed that it could help increase production, but needed to be embedded in a variety of other measures such as beneficial trade policies and transportation improvements to achieve that goal. Scientists ignored rural social and economic problems, and focused, like planters, on increasing production, but unlike them, believed that it could be increased through science alone.⁹ Following the Depression-era collapse of the world market (and the consequent disruptions in Latin America’s export-led economies), support for agricultural research briefly waned and the state called on scientists to help implement technical solutions to pressing social problems.¹⁰

The second time period begins roughly in the early 1940s and continues through the early 1970s. This era encapsulates the golden age of Import Substitution Industrialization (ISI), an inward-looking economic development policy, which, in some contexts, also included Import Substitution Agriculture (ISA). More importantly in this

⁸ Stuart McCook, *States of Nature: Science, Agriculture, and Environment in the Spanish Caribbean, 1760-1940* (Austin: University of Texas Press, 2002); McCook, “‘Giving Plants a Civil Status’: Scientific Representations of Nature and Nation in Costa Rica and Venezuela, 1885-1935,” *The Americas* 58 (April 2002): 513-536.

⁹ Stuart McCook, “Promoting the ‘Practical’: Science and Agricultural Modernization in Puerto Rico and Colombia, 1920-1940,” *Agricultural History* 75 (Winter 2001): 52-82.

¹⁰ Ibid.

historiography, this was also the era of the Rockefeller Foundation's heaviest involvement in Latin American agronomy. In this period, Latin America's agronomists are described as convinced that agricultural research was only one key to solving their nations' rural problems. They did not see a rigid separation between social and scientific issues and battled with the Rockefeller Foundation's plant breeders who did believe that they were separate, and worked hard to impose that rigid view. Nevertheless, despite emphasizing research on food crops designed to achieve national self-sufficiency, agronomists mostly succeeded in substituting agricultural imports for the crops that benefited industrialists or large landowners.¹¹ Some recent work has begun to question some of these assumptions, arguing that Mexican agronomists, for example, did not differ from their Rockefeller Foundation counterparts in rejecting a connection between social and scientific problems in the countryside or that it was the Foundation's agronomists, not Mexican ones, who initially supported open-pollinated corn, rather than vice versa, as is usually portrayed.¹²

While these recent correctives to the historiography are important, they do not go far enough. There are broader problems spanning each of the two periods as they are currently defined. One is the assumption that the impulse to develop agricultural science in Latin America came in the late nineteenth century from the region's

¹¹ Joseph Cotter, *Troubled Harvest: Agronomy and Revolution in Mexico, 1880-2002* (Westport: Praeger, 2003); Deborah Fitzgerald, "Exporting American Agriculture: The Rockefeller Foundation in Mexico, 1943-1953," in *Missionaries of Science: The Rockefeller Foundation and Latin America*, ed. Marcos Cueto (Bloomington: Indiana University Press, 1994); Bruce H. Jennings, *Foundations of International Agricultural Research: Science and Politics in Mexican Agriculture* (Boulder: Westview Press, 1988).

¹² Cotter, *Troubled Harvest*; Karin Matchett, "At Odds over Inbreeding: An Abandoned Attempt at Mexico/United States Collaboration to 'Improve' Mexican Corn, 1940-1950," *Journal of the History of Biology* 39 (Summer 2006): 345-372.

commodity exporters, who were focused solely on increasing production of their crops. This is contradicted by Colombian historiography, which readily demonstrates that, while large landowners may have been a driving force in professionalizing agronomy, their interest began in the late eighteenth century and was equally as concerned with improving production of nationally consumed food items as it was with improving production of export crops.¹³ This continued through the nineteenth century. At the inaugural meeting of the Colombian Society of Agriculturists (SAC) in 1878, for example, wheat, corn, and potatoes were discussed as much as cotton, sugar, and tobacco.¹⁴ Moreover, by the 1920s, Colombia's coffee exporters recognized that, to ensure standard quality of their exported beans, programs to improve social conditions in the coffee-growing countryside were as important as scientific research.¹⁵

The coffee exporters' concern with the living conditions of peasant growers exemplifies another problem with the historiography on Latin American agronomy. The contradiction it paints between late-nineteenth century agronomists unconcerned with social conditions and mid-twentieth century agronomists battling the Rockefeller Foundation to ensure that those conditions were included in research design and

¹³ Bejarano, *Economía y poder*; Bejarano, "Las ciencias agropecuarias hasta mediados del siglo XX," in *Minagricultura 80 años: La agricultura y las políticas sectoriales*, ed. Absalón Machado Cartagena (Bogotá: TM Editores, 1994); Victor Manuel Patiño, "Historia de la tecnología agropecuario de Colombia," in *Apuntes para la historia de la ciencia en Colombia*, ed. Jaime Jaramillo Uribe (Bogotá: Colciencias/Fondo Colombiano de Investigaciones Científicas "Francisco José de Caldas", 1970); John Wilton Appel, "Francisco José de Caldas: A Scientist at Work in Nueva Granada," *Transactions of the American Philosophical Society* 84, no. 5 (1994): 1-154.

¹⁴ Bejarano, *Economía y poder*; Salvador Camacho Roldán, "La agricultura en Colombia," in *Escritos sobre economía y política*, ed. Jesús A. Bejarano (Bogotá: Instituto Colombiano de Cultura, 1976).

¹⁵ Christopher London, "The Cultural Politics of Technical Change in Colombian Coffee Production," unpublished master's thesis, Cornell University, 1994; Federación Nacional de Cafeteros de Colombia, *El café en el desarrollo de Antioquia: Visión histórica y acción gremial* (Medellín: Comité Departamental de Cafeteros de Antioquia, 2000). While the latter source was written by the Colombian Coffee Growers' Federation, and was thus designed to portray them in a positive light, they still described early extension activities focused on housing and education that clearly demonstrate an interest in these issues from early in the twentieth century.

dissemination clearly requires explanation – how did such a dramatic shift in social awareness occur, if indeed it did? A more likely explanation, and something that the contradiction present in the historiography overlooks, is the degree to which both tendencies were evident in both periods.¹⁶ Agronomists did not suddenly become aware of living conditions in rural areas during the Mexican agrarian reform of the 1930s or the social unrest throughout the region following the economic disruption of the Depression. Issues such as land concentration, rural education, housing, sanitation, medical care, and the effects of agricultural policies (or lack thereof) were always apparent to agricultural scientists. What the historiography overlooks is the way that their willingness to address those issues was situational; in some contexts they emphasized the need for social reforms and economic policies to accompany implementation of scientific reforms in agricultural production. In other contexts, they focused solely on science. Economic policies, in general, were often emphasized or ignored, depending on the context. The example of Hauzeur's promotion of rye in 1945 provides a perfect illustration: when he claimed that the growing conditions for wheat in the United States and Argentina were so propitious that they sometimes led to overproduction, he completely ignored the economic policies in those countries, particularly the U.S., that encouraged and allowed such overproduction to occur in the

¹⁶ While more research is clearly needed for the earlier period, Michael F. Jimenez mentions that in the early twentieth century, coffee estate owners already supported public health programs for their workers. See, Jimenez, "Traveling Far in Grandfather's Car: The Life Cycle of Central Colombian Coffee Estates. The Case of Viota, Cundinamarca, 1900-30," *HAHR* 69 (May 1989): 185-219, 193-194. For the later period see, London, "Cultural Politics."; Federación Nacional, *Café en el desarrollo*. For Mexico, see Joseph Cotter, "The Rockefeller Foundation's Mexican Agricultural Project: A Cross-Cultural Encounter, 1943-1949," in *Missionaries of Science: The Rockefeller Foundation & Latin America*, ed. Marcos Cueto (Bloomington: Indiana University Press, 1994).

first place. But, for the purposes of his argument that Colombia should grow rye, this erasure made perfect sense.

Erasing or purposefully overlooking certain issues depending on contextual exigencies describes, to some degree, the final problem with the historiography on Latin American agronomy. An interesting paradox lies at its core. Scholars often accuse Latin American agronomists of perpetuating racist or class-based stereotypes, in order to validate their work and secure resources for research and extension activities. This is true even for the agronomists who incorporated social and economic issues into their work. Thus, peasant producers were described as “backward,” “pre-modern,” or “traditional” in comparison to “rational” and “modern” agronomists.¹⁷ But, those very same agronomists were themselves often considered “backward” by North American or European scientists. Their research institutions were described as “immature” and their methods broadly criticized: too much emphasis on social and economic aspects of agriculture, rather than on biology and chemistry; lack of interest in conducting research on experimental farms (in other words, they didn’t want to get their hands dirty and were focused on theory rather than empiricism); inattention to experimental

¹⁷ Cotter, *Troubled Harvest*; Fitzgerald, “Exporting American Agriculture.” Although focused on more recent history, Chris J. Shepherd deftly describes this process at work in Peru. See Shepherd, “From in vitro to in Situ: On the Precarious Extension of Agricultural Science in the Indigenous ‘Third World,’” *Social Studies of Science* 36 (June 2006): 399-426. Shepherd’s work echoes a larger body of anthropological work that examines how “development experts” tend to magnify the modern/traditional divide between themselves and peasant producers (or other “targets” of development), partly to ensure the perpetuation of their organizations and activities. The classic work in this vein is Ferguson, *Anti-Politics Machine*. See also, Escobar, *Encountering Development*. Obviously, it also cannot be overlooked that, in many cases, agronomists perpetuated these ideas not because they were interested in securing resources for their work, but simply because they believed them to be true. See Jennings, *Foundations of International Agricultural Research*.

design, and preference for observation over statistical analysis.¹⁸ In many cases, Latin American agronomists themselves made such criticisms, suggesting that they had internalized the discourse that cast them in a subordinate role within the global scientific community.

Thus, agricultural scientists in Latin American contexts occupied an intermediate space in which they were simultaneously “modern,” and “pre-modern.” Largely Catholic, speakers of a Western European language, inheritors of both Enlightenment-era efforts to organize economies based on scientific rationality and the same Greco-Roman political practices adopted by their northern neighbor, these agronomists were firmly part of “the West” and unlike their counterparts in India or China, had little need to reconcile their own scientific and spiritual traditions with the very different ones of a contemporary colonial power.¹⁹ Nevertheless, for centuries they had been stigmatized, first by western Europeans (both Iberian and non-Iberian), and later by North Americans, as a lesser partner in the community of people or nations that comprised Western civilization.²⁰ Adding force to this, by the end of the nineteenth century, they were embedded in the global economy in a subordinate role – suppliers of raw mineral and agricultural materials, consumers of more expensive manufactured goods and

¹⁸ Cotter, “The Rockefeller Foundation’s Mexican Agricultural Project”; Jennings, *Foundations of International Agricultural Research*. For a contemporary example of this criticism, see, Stakman, Bradfield, and Mangelsdorf, *Campaigns Against Hunger*, 11.

¹⁹ Fa-ti Fan, “Redrawing the Map: Science in Twentieth Century China,” *Isis* 98 (September 2007): 524-538; Gyan Prakash, *Another Reason: Science and the Imagination of Modern India* (Princeton: Princeton University Press, 1999); Grace Shen, “Murky Waters: Thoughts on Desire, Utility, and the ‘Sea of Modern Science,’” *Isis* 98 (September 2007): 584-596.

²⁰ Jorge Cañizares-Esguerra, “New World, New Stars: Patriotic Astrology and the Invention of Indian and Creole Bodies in Colonial Spanish America, 1600-1650,” *The American Historical Review* 104 (February 1999): 36-68; Cañizares-Esguerra, *How to Write the History of the New World: Histories, Epistemologies, and Identities in the Eighteenth-Century Atlantic World* (Stanford: Stanford University Press, 2001); Walter D. Mignolo, *The Idea of Latin America* (Malden, MA: Blackwell Publishing, 2005).

subject to a variety of neo-colonial attempts to secure continued control over raw materials and consumers.²¹

Unfortunately, the intermediate space that these Latin American agricultural scientists historically occupied is reproduced in contemporary historiography. While emphasizing their concern for the social and economic issues of agricultural production is essential to understanding the history of agricultural sciences in Latin America, especially considering how much those concerns were present in their work, the way that this is often done – by pitting socially-focused Latin American agronomists against strictly scientifically-focused agronomists from the Rockefeller Foundation – reconstructs the “pre-modern”/“modern” dichotomy.²² Recent work has challenged that and begun to recover the shared goals of RF and Latin American agronomists, by focusing on institution building, struggles for recognition as important contributors to national development, and the continuity between agricultural research methods before and after the Rockefeller Foundation arrived.²³ But while commendable, by not examining the work Latin American agronomists produced, these approaches fail to fully break down the pre-modern/modern dichotomy. In recent decades historians of science and technology focusing on western Europe and the United States have demonstrated the myriad ways that science can no longer be considered a coherent and

²¹ Bulmer-Thomas, *Economic History of Latin America*; Enrique Cardenas, José Antonio Ocampo, & Rosemary Thorp, eds., *An Economic History of Twentieth Century Latin America, Vol. 1, The Export Age* (New York: Palgrave, 2000); José Antonio Ocampo, ed., *Historia económica de Colombia* (Bogotá: Siglo XXI Editores de Colombia, 1987). One of the classic works describing Latin America’s subordinate role in the global economy is Eduardo Galeano, *Open Veins of Latin America: Five Centuries of the Pillage of a Continent* (New York: Monthly Review Press, 1973).

²² Fitzgerald, “Exporting American Agriculture”; Jennings, *Foundations of International Agricultural Research*.

²³ Cotter, *Troubled Harvest*; Karin Matchett, “At Odds over Inbreeding.”; Stuart McCook, “Promoting the ‘Practical’”; McCook, *States of Nature*; McCook, “Giving Plants a Civil Status.”

universal body of knowledge, but rather, a mix of various forms of local knowledge emerging from a particular social, cultural, and economic context. By examining scientists' work, contemporary historians have readily demonstrated the presence of social issues in seemingly "objective" and "universal" scientific knowledge. To overcome the pre-modern/modern trap in which Latin America's agronomists find themselves, their scientific production must be considered as well.²⁴

Research on the viability of wheat production in mid-twentieth century Colombia readily demonstrates the importance of such an approach. As Grace Shen noted in her examination of the relationship between "universal" and local knowledge: "What is interesting to me about science in modern China is how something so knowingly adopted from foreign models became so entwined in the Chinese quest for self-determination."²⁵ In the Colombian case, agronomists studying the possibilities for wheat production in the late 1940s and early 1950s were on a quest for self-determination of a different sort, in two ways: 1) recognition of their important place in national economic development planning; and 2) demonstration of Colombia's ability to become a self-sufficient nation. While governmental institutions and resources supported their work, agronomists were still often ignored when policy decisions were officially enacted or put into practice. Engineers were already widely regarded as

²⁴ Such work has begun for related fields, but still lags for agronomy, perhaps the result of its more immediate connection to non-scientists, and thus, questions of extension and its place in the process of rural development. On biology and genetics in Mexico, for example, see, Ana Barahona, Susana Pinar, and Francisco J. Ayala, "Introduction and Institutionalization of Genetics in Mexico," *Journal of the History of Biology* 38 (Summer 2005): 273-299; Ismael Ledesma-Mateos, and Ana Barahona, "The Institutionalization of Biology in Mexico in the Early 20th Century. The Conflict between Alfonso Luís Herrera (1868-1942) and Isaac Ochoterena (1885-1950):" *Journal of the History of Biology* 36 (Summer 2003): 285-307.

²⁵ Shen, "Murky Waters," 596.

experts in the Colombian context, and contemporary scholars have examined their role in infrastructural and industrial development from a variety of perspectives.²⁶ Very little work has been done on agronomists, on the other hand.²⁷ Yet, they matter for more reasons than the need to simply fill in a gaping hole in the historiography.

Enmeshed in a volatile political context, with intensely acrimonious partisan conflict at the national level echoed in violent manifestations in the countryside, the struggle of Colombia's agronomists transcended national borders.²⁸ On one hand, they battled powerful national interests who preferred imported wheat to domestically grown. On the other, they combated U.S. economic power, manifested in attempts to dominate the wheat markets of developing countries, partly by disparaging efforts to achieve self-sufficiency. The site of both fronts was their research. Adapting U.S. agricultural research on wheat and other crops, they conducted experiments and reported results that simultaneously demonstrated their expertise and clamored for independence from U.S. economic power.

The following section outlines agronomists' struggle for recognition as experts, manifested both in efforts to police the boundaries of their profession and in conflicts with governmental ministers and milling interests. The subsequent section examines the international context, demonstrating how the unstable global wheat market manifested itself in imperialistic attempts to control Colombia's wheat market. Finally,

²⁶ Mayor Mora, *Ética, trabajo y productividad*; Pamela Murray, *Dreams of Development: Colombia's National School of Mines and its Engineers, 1887-1970* (Tuscaloosa: University of Alabama Press, 1997); Frank Safford, *The Ideal of the Practical: Colombia's Struggle to Form a Technical Elite* (Austin: University of Texas Press, 1976).

²⁷ Bejarano, "Las ciencias agropecuarias"; Patiño, "Historia de la tecnología agropecuario."

²⁸ Braun, *The Assassination of Gaitán*; Palacios, *Between Legitimacy and Violence*; Roldán, *Blood and Fire*.

the last section looks at the response of Colombia's agronomists to this imperial discourse, a response centered on the issue of wheat varieties and their adaptability to widely divergent soil and climate conditions.

"Wheat Growers on an Industrial Scale": Agronomy, Imports and Political Pressure

Colombian agronomists often divide the national history of their profession into two eras – "pre- and post-Rockefeller." Referring to the establishment in 1950 of a cooperative program between the Rockefeller Foundation and the Ministry of Agriculture, they claim that prior to the arrival of the Foundation-affiliated North American agronomists, agricultural science in Colombia was almost entirely theoretical, involving very little experimentation, field work, or soiling of one's hands.²⁹ Surprisingly, this criticism is much sharper than any made by the Rockefeller Foundation, which generally assessed agronomy in Colombia positively, even before it established its cooperative program with the Ministry of Agriculture.³⁰ Indeed, while it is highly likely that the pace of field research dramatically increased once the infusion of capital that accompanied the establishment of the cooperative program made such

²⁹ José Joaquín Castaño, interview with the author, Medellín, April 4, 2008; Jairo Correa Velazquez, interview with the author, Medellín, April 11, 2008; Jairo Cano, interview with the author, Bogotá, July 9, 2008. All three of these agronomists received grants from the Rockefeller Foundation in the 1940s, 1950s and 1960s to attend universities in the United States to earn master's or Ph.D. degrees. They also worked alongside agronomists from the Rockefeller Foundation assigned to several of Colombia's experimental stations as part of the cooperative program between the Foundation and the Ministry of Agriculture between 1949 and 1966. Although Correa Velazquez was the one who labeled the two eras of Colombian agronomy as "pre" and "post" Rockefeller, all of them made similar descriptions.

³⁰ Indeed, its positive assessment of Colombian agronomy is part of the reason that the RF chose to expand its agricultural work to that country – the Foundation felt that it might make progress even more quickly there than it had in Mexico owing to the significant institutional base already in place and the quality of the work being done. See, Rockefeller Archive Center (hereafter RAC), Rockefeller Foundation (hereafter RF), Record Group (hereafter RG) 1.2, Series (hereafter S), 311, Box 1, Folder 2, "Report on a Trip to Colombia and other South and Central American Countries June 10-July 8, 1948 by Richard Bradfield and Paul C. Mangelsdorf.

work easier to conduct and maintain over the long-term, 1950 hardly marked the first time such hands-on research had been conducted in the fields of Colombia's agricultural experiment stations. The Palmira experimental station was established near Cali in 1913, the Picota experimental farm near Bogotá in 1915, and the Juan de Dios Carrasquilla Tropical Experiment Station near present-day Armero in Tolima in 1917. Most of these operated sporadically over the next fifteen years. Palmira, for example, did not begin to systematically conduct experimental research on sugar cane, tobacco, tropical fruits, and pasture grasses until 1926. Other stations and experimental farms were established throughout the country; some never functioned fully, others survive in some form to the present day. Sporadic efforts eventually gave way to more formally organized initiatives. Law 132 of 1931 stipulated that promoting agricultural research and training was a function of the state and experimentation subsequently began in greater earnest at the various stations scattered throughout the country.³¹

Indeed, one of the most widely cultivated varieties of wheat in Colombia at the time that the Rockefeller Foundation agronomists arrived in 1950 was the result of research and experimentation done at the Picota farm near Bogotá in the 1930s. Researchers used essentially the same steps that the RF agronomists would later utilize and promote after they arrived: "native" varieties were chosen from farmers' fields for characteristics such as yield and resistance to pests, they were taken to the laboratory for further study then re-planted under carefully controlled conditions on the grounds of the experimental farm. Varieties that performed well in the initial observations were

³¹ Bejarano, "Las ciencias agropecuarias"; Patiño, "Historia de la tecnología agropecuario."

selected and planted on a larger scale the following growing season for further observations, and so on for several years, until eventually, the variety Bola Picota was deemed “pure” and released commercially, promoted as the most apt for Colombia’s growing conditions. Colombian agronomists did not consider their work to be done at that point, however, as they then began to turn their attention to crossing Bola Picota with other varieties in order to create “improved” varieties with even higher yield or greater resistance to the pests that plagued the countryside.³²

Moreover, in the years immediately preceding the arrival of the RF scientists, Colombia’s agronomists were already deeply committed to the professionalization of their field, a process that included efforts to ensure that the experiments on which they based their conclusions were properly conducted and analyzed. The pages of *Agricultura Tropical* served as a vehicle for policing the boundaries of their field and the quality of the work of the nation’s agronomists. In September 1945, for example, Gervasio Obregón published a study of the effect of densely planted fields of wheat on yield and resistance to disease.³³ Two months later, the journal published a two-page commentary on the study penned by Fernando Suárez de Castro, one of Colombia’s most well-known agronomists. Suárez strongly criticized two elements of Obregón’s work: the size of the test plots and the fact that he had not done any replications. He

³² Antonio Miranda, “Cual es el origen del trigo ‘Bola Picota,’” *AT* 1 (March 1945): 9-10. This “pre-Rockefeller” history is often obscured, overlooked, or ignored in Colombian historiography. For example, Jesús Antonio Bejarano, one of Colombia’s most important scholars of economic and agricultural history, wrote in 1994 that a significant result of the collaboration with the Rockefeller Foundation in the 1950s was “the work began on wheat improvement at the Picota station,” suggesting that there had been no work going on prior to the RF’s arrival. See Bejarano, “Las ciencias agropecuarias,” 204.

³³ Gervasio Obregón, “Investigaciones sobre densidad y distancia del trigo,” *AT* 1 (September 1945): 7-11; Obregón, “Investigaciones sobre densidad y distancia del trigo, Continuación,” *AT* 1 (October 1945): 7-12.

pointed out that while most experimenters recommended that the size of test plots be approximately one hundred square meters, Obregón had used test plots that were only nine square meters. Suárez questioned how representative Obregón's results could be with such a small test plot. Similarly, he pointed out that all agricultural experiments were influenced by three factors: differences between test samples, the heterogeneity of soils, and annual weather fluctuations. Without replications, it was impossible to determine if the results achieved were applicable across time and space, or if they were merely flukes, characteristic of only that sample of seeds, on that spot of soil, under the particular weather conditions the year that they were grown.³⁴

Suárez concluded his commentary by subtly chiding Obregón for ignoring the basic tenets of modern agricultural experimentation, pointing out that it was "an exact science far removed from ancient empiricism." His subsequent criticism of poor scientific methods exemplify how ACIA's agronomists utilized the pages of *Agricultura Tropical* to police the boundaries of the profession and exclude work that did not meet their specifications:

"With the recent advances in statistical analysis of results and in the technology that can be used to obtain them, it is necessary that whoever dedicates himself to the demanding field of agronomy possesses not only magnificent observational skills and profound knowledge of the particular crop that he wishes to study, but also to be aware of all of the techniques developed by modern researchers and put in general use at the experiment stations in advanced countries."³⁵

³⁴ Fernando Suárez de Castro, "Algunas observaciones al artículo 'Investigaciones sobre densidad y distancia del trigo,'" *AT* 1 (November 1945): 12-13.

³⁵ *Ibid.*, 13.

At stake in protecting professional boundaries was the legitimacy of the profession in the eyes of policy-makers, state and private institutions, and the general public. Suárez argued that if shoddy research became the norm, the profession would never earn the respect of the public and agronomists would never play a role in the nation's development: "the scientist...should not allow himself to commit serious errors in his recommendations. Such behavior is the origin of the loss of confidence in his work on the part of the very people who it is designed to benefit."³⁶

Suárez was not alone in his desire to protect the reputation of the emergent profession and ensure that its practitioners were taken seriously. In previous decades, professionals in other fields, such as engineering, had succeeded in attaining status as experts capable of solving a variety of the nation's infrastructural and industrial development problems.³⁷ Agronomists, on the other hand, did not yet enjoy such status when it came to issues related to rural development. Lawyers had pride of place in that arena of public policy, since much of the nation's agricultural problems were understood in legal terms, focusing almost exclusively on land tenure. Engineers played a role in that area as well, being that cadastral surveys went hand-in-hand with efforts to sort out messy land titles. The centrality of land tenure to agricultural development questions is evidenced in the political nature of the Ministry of Agriculture and the

³⁶ Ibid., 13. The following month, Obregon defended his work by similarly relying on scientific work done in other countries indicating that smaller test plots were less prone to error and quoting a North American researcher who stated that "No particular size or shape of plot can be described as best in all circumstances" (English version in the original). He also criticized Suárez' critique of his work, indicating that a more careful reading would have made it clear that he had indeed done replications and artfully sniping that "a critic must have magnificent observational skills." Specifics aside, Obregón's vigorous defense of his work ultimately serves to throw a stronger "scientific" mantle on the profession of agronomy in Colombia at the time. See Gervasio Obregón, "Nuevos comentarios al artículo: 'Investigaciones sobre densidad y distancia del trigo,'" *AT 1* (December 1945): 16-18.

³⁷ Mayor Mora, *Ética, trabajo y productividad*; Murray, *Dreams of Development*; Safford, *Ideal of the Practical*.

consequent instability in leadership of related institutions. This both reflected and affected the ability of the nation's agronomists to make an impact on agricultural development. In the ten years between 1938 and 1948, for example, six different people had been in charge of the wheat-breeding program at the Picota farm near Bogotá.³⁸ Evidently, the expertise of the nation's agronomists was not yet widely considered of consequence.

Luís Hernando Correa Cancino lamented this in his 1948 master's thesis at the Faculty of Agronomy at the Medellín branch of the National University. One of his five chapters about wheat production in a cold-climate region of the department of Valle was almost entirely a bitter protestation of the way that politics took center stage in formulating rural development policies, while agronomy was relegated to the sidelines, or worse still – ignored completely. Sadly, Correa asserted, this meant that most of the development projects government officials attempted to implement failed miserably. Rather than recognize that more careful attention to technical details and consultations with experts such as the nation's agronomists would ensure success in the future, however, factional forces politicized the failures. That was the easier path, Correa argued, but one that the nation's agronomists naturally avoided: "...today's Agronomic Engineer will not unconsciously join that group of malcontents and pessimists who believe that our agriculture will always be rudimentary." Instead, the nation's agronomists would be the ones who would lead the country's rural areas out of poverty, misery and insufficient levels of production. Of course, they could only do this

³⁸ RAC, RF, RG 1.2, S 311, Box 1, Folder 2, "Report on a Trip to Colombia," 9.

if they were taken seriously and Correa lamented that so much of what passed for “expertise” in agricultural questions was based on poor scientific foundations:

It is the agronomist’s right to have the last word in agriculturally oriented questions, in order to help the Government and the private sector in the unceasing efforts to rescue the poor farmer from his prostrate situation. Up until now, what else has been the principal work of the profession of agronomy other than an open struggle against incomprehension, negativity and secular ignorance?³⁹

The assertion of “rights” assumed a level of acceptance as an expert that was not yet widely diffused through Colombian society. No one understood this better than Jorge Ortíz Méndez, Director of the Ministry of Agriculture during the presidential administration of Mariano Ospina Pérez (1946-1950) and very briefly during that of his successor, Laureano Gómez (1950-1953). A Conservative from the department of Antioquia, Ospina Pérez was the son of Tulio Ospina Vasquez, one of Colombia’s most reknown engineers, who had studied “Agricultural Chemistry” in France in the 1870s and had been a founder and director of Medellín’s National School of Mines.⁴⁰ Ospina Pérez thus grew up in an environment in which science and technology were revered and considered essential to economic and social progress.⁴¹ That he inherited his father’s enthusiasm for science in general, and agricultural science in particular, was evident in his work as founding member and later president of the National Coffee Growers’ Federation (Federación Nacional de Cafeteros – FEDECAFE), which was

³⁹ Luís Hernando Correa Cancino, “Una orientación técnico-económica de la industria triguera de Barragán,” unpublished master’s thesis (Faculty of Agronomy, Universidad Nacional de Colombia, Medellín, 1948): 3.

⁴⁰ Murray, *Dreams of Development*; Safford, *Ideal of the Practical*. Ospina Vasquez died in 1921; in 1926, after the passage of Law 74, which promoted the creation of agricultural experiment stations around the country, one of the Faculty of Agronomy’s most important experimental stations in Medellín was renamed in his honor. See, Bejarano, “Las ciencias agropecuarias,” 194.

⁴¹ “Science” was not the only influence on young Mariano Ospina Pérez – he was also the grandson of former president Mariano Ospina Rodríguez (1857-1861) and the nephew of former president Pedro Nel Ospina (1922-1926).

dedicated to ensuring high quality in Colombia's coffee exports.⁴² His commitment to agricultural modernization via the path of science is particularly evident in his creation of the Ministry of Agriculture during his first year of office in 1946. Moreover, in 1947 during his second year as president, Ospina Pérez initiated talks with the Rockefeller Foundation to establish a cooperative program on agricultural science, talks which culminated in late 1949 with an agreement between the Foundation and the Colombian government.⁴³ As Director of the Ministry of Agriculture toward the end of Ospina Pérez' administration, Jorge Ortíz Méndez played an important role in those negotiations.

For the first half-year of its operation, the collaborative program, initially known as the Colombian Agricultural Program (CAP), enjoyed the broad support of the president and the Ministry of Agriculture. However, once the new presidential administration of Laureano Gómez began, the program started to experience some snags. Although they were both from the Conservative Party, Gómez and Ospina Pérez had a politically contentious relationship, partly resulting from the intra-party conflict in 1946, that had awarded the presidential candidacy to Ospina Pérez. Moreover, Gómez had a long-standing antipathy to the United States, stemming from resentment over its role in Panamanian independence and the building of the canal, resentment that was rekindled around the country in the 1920s – when Gómez was still a young man – after Colombia and the United States finally negotiated an indemnity in compensation for Colombia's loss of Panama. Since that time, Gómez had been deeply suspicious of

⁴² London, "Cultural Politics."

⁴³ RAC, RF, RG 1.2, S 311, Box 1, Folder 1, Resolution 49127 establishing the Colombian Agricultural Program (CAP).

the United States and bitterly opposed to its presence in a variety of forms in Colombia. Although his position did dramatically soften during his administration – he quickly became an ally of the U.S. during the Korea War, sending a Colombian battalion to the peninsula, the only Latin American country to do so – this was complicated by his concerns about Colombia's racial composition. Along with other young Conservatives in the 1920s, Gómez had responded to the discourse of eugenics emanating from Europe and the United States by declaring in a 1928 speech that the blame for Colombia's "backwardness" could be laid at the feet of its indigenous people, an inferior racial group.⁴⁴ Thus, his antipathy toward the United States was complicated by an admiration for what he perceived as "racial superiority." This ambiguity apparently pervaded his entire cabinet, evident in the words and actions of his Minister of Agriculture, particularly in regards to the Rockefeller Foundation.⁴⁵

As Ortiz Méndez asserted in October 1950, Alejandro Angel Escobar apparently had very little regard for the governmental entity he had taken charge of in August:

Your honor came to this Ministry totally convinced that it is completely disorganized, that its personnel are untrained and incompetent, that the only thing that exists here is excessive bureaucracy, and that one or two of the technical people may be capable, but they are not offering any benefit to

⁴⁴ Arias Trujillo, *Los Leopardos*, 161-162. In 1928, for example, he gave a speech at the Municipal Theater of Bogotá titled, "Thoughts on Colombia's Progress," in which he said, "...in these latitudes, that is, in the zone ten degrees north and ten degrees south of the equator, there does not exist one region that over the course of entire human history has ever been the site of a true culture." See, Roberto Herrera Soto, ed., *Antología del pensamiento conservador en Colombia* (Bogotá: Instituto Colombiano de Cultura, 1982), 495.

⁴⁵ Henderson, *Modernization in Colombia*; Eduardo Sáenz Rovner, *Colombia años 50: Industriales, política y diplomacia* (Bogotá: Universidad Nacional de Colombia, 2002). Adding fuel to Gómez' ire was the 1940 Pan-Am takeover of SCADTA, Colombia's main airline which had been founded by German interests in 1919. See Silvia Galvis and Alberto Donadio, *Colombia Nazi, 1939-1945: Espionaje alemán, La cacería del FBI, Santos, López y los pactos secretos* (Bogotá: Planeta Colombiana Editorial, 1986). According to Marco Palacios, following these events, "every hint of cooperation between Colombia and the United States that reached the public ear was fiercely attacked by the Conservative right, which sympathized with the fascist powers and detested the 'Anglo-Saxons.'" Palacios, *Between Legitimacy and Violence*, 117.

the country. Almost all of my work these past two months has been reduced to trying to rectify these concepts.⁴⁶

Ten pages of complaints followed that paragraph. One of the most important was the Minister's response to Ortíz' August request for funding so that several of Colombia's plant disease specialists could attend a meeting of Latin American agronomists in Mexico in September, a meeting sponsored by the Rockefeller Foundation. His bitterness over the Minister's reaction was still evident two months later:

The response you gave me regarding the value of this conference is not appropriate to transcribe in this letter. At best, your opinion of the conference is that it was nothing more than a vacation and a gathering of friends who prefer tourism to work. You did not want to believe in the seriousness and careful attention that the Rockefeller Foundation gives to these questions or that institution's particular interest in the attendance of our specialists at that scientific meeting.⁴⁷

This seemed particularly egregious to Ortíz, considering that for him, the very presence of the Rockefeller Foundation in the country demonstrated how far Colombia had advanced in agricultural research. Noting that the Foundation surely chose to come to Colombia rather than any other South American country because it found "adequate facilities and personnel" there, he asked, "Is it even possible to calculate the transcendence of the fact that we have achieved that Institution's collaboration?"⁴⁸ Apparently, however, the value of scientific research was lost on the Minister:

You maintain publicly and privately that nothing is being done here, that this is all a waste, and that the labor of this bureaucratic train isn't going

⁴⁶ Archivo General de la Nación (hereafter AGN), Colección Rojas Pinilla, Secretaría Técnica y Económica, Box 3, Folder 7, f 1-10, 1.

⁴⁷ Ibid., 4.

⁴⁸ Ibid., 7.

anywhere at all. Perhaps what's going on is that you don't want to accept that the Ministry of Agriculture is charged with carrying out an eminently technical function because you don't trust technicians or you feel animadversion toward scientific questions for reasons unknown to me. In addition, you have also confused public administration and the activities corresponding to the state with the ones for which the private sector is responsible. I clearly remember once when you said to me: 'how is it possible that I, on my farm, produce more than two thousand liters of milk a day with only 15 or 16 farmhands, while Picota has many more workers and yet barely produces ten liters?'⁴⁹

It seems incredulous that a new Minister of Agriculture – even one with a background in law and economics, as Angel had – could be so ignorant of the purpose of an agricultural experiment station.⁵⁰ Apparently, he was, as Ortíz felt it necessary to give Angel a short history of all the agricultural advances Colombia had made over in recent years, especially under the administration of Ospina Pérez. Among them was the creation of the very ministry that Angel now headed. Research at the agricultural stations, such as the one that Angel disparaged, had also made great strides, as Ortíz pointed out: "Isn't it true that the wheat varieties cultivated today in Cundinamarca and Boyacá are products of the work done at the 'Francisco José de Caldas Agricultural Station,' formerly called 'La Picota?'"⁵¹

Ortíz also complained that politics had begun to divide the ministry and this greatly inhibited its scientific and bureaucratic work. The problems that had emerged in just two short months were so severe, in fact, that Ortíz had decided to resign, his

⁴⁹ Ibid., 6.

⁵⁰ The incredulity increases when one considers that this Angel Escobar stipulated that, after his death, his immense fortune should be used to establish a foundation inspired by the Rockefeller Foundation and the Nobel Peace Prize. Since 1955, the Fundación Alejandro Angel Escobar has granted prizes to the best work done in a variety of scientific and social fields.

⁵¹ AGN, Colección Rojas Pinilla, Secretaría Técnica y Económica, Box 3, Folder 7, f 1-10, 7.

October letter serving as notice of his intentions, as well as a record of his reasons why.

As he complained resignedly:

There are problems of extreme importance in the country's economic life and [many are] particularly crucial for our agricultural development, which I have tried to explain to you several times, and always fail in my attempts: these include wheat, lard, tobacco, rice, barley, sugar cane molasses, and chocolate. I would have to fill many more pages if I continued discussing here all the problems that are not being considered, but it seems useless to continue with these details because it's wearing me out.⁵²

Ortiz' resignation letter offers a poignant example of the struggle of the nation's agronomists to gain the power to truly impact the nation's economic development, especially in the polarized political context prevalent in Colombia at the time.

Agronomists were quite aware, however, particularly because of the reigning political polarization, that science alone was insufficient to achieve their goals of self-sufficiency in staple food crops, especially wheat. Just six months later, another resignation letter reiterated how politics infused all the Ministries and affected national agriculture.

Joaquín Ospina Ortiz was the Director of the National Price Control Office, an agency of the Ministry of Economic Development, charged with regulating prices for basic goods.

In September 1950 he worked together with the Ministry of Development and the Agricultural Products Defense Corporation (INA) to devise an agreement that would address the nation's wheat shortage. INA oversaw the importation and national distribution of essential food items, such as wheat. The September agreement came on the heels of a disastrous growing season, with excessive rain and low temperatures, leading to a serious domestic wheat shortage. To prevent complete financial ruin for

⁵² Ibid., 5-6.

farmers, the agreement authorized an increase in the price of grain for sale to the nation's millers, to take effect immediately. The agreement did not include a corresponding price increase on imported wheat. Ospina Ortiz lamented the chaos this caused – the price of domestic wheat was thirty pesos more per hectoliter than imported. As he considered the former an inferior product to the latter, this made no economic sense, and was particularly onerous for millers on the Atlantic coast, once the high transportation costs from the interior were added. Speculation with scarce imported and domestic wheat resulted. The National Price Control Office believed that increasing wheat imports would help to alleviate the situation, but only if the price of domestic wheat was reduced. It had no power to regulate how much or at what price wheat was imported, however. Only INA could do that. Ospina Ortiz complained that he had urged the Minister of Economic Development to sign the resolution authorizing the price increase under the assumption that shipments of imported wheat would be imminent, and would thus help to keep the market stable. The Minister of Agriculture, Angel Escobar, who had to sign off on import licenses before INA could purchase wheat from foreign suppliers, refused to do so, arguing that it would be detrimental to the nation's wheat farmers. Ospina Ortiz outlined a continuing pattern of similar cases involving a variety of other items, such as rice and beef (due to an outbreak of foot-and-mouth disease). He hinted that political considerations challenged his ability to keep prices stable and avoid (and certainly not exacerbate) chaos in the market. He finally gave up when he heard rumors that oversight of the National Price Control Office was going to pass from the Ministry of Economic Development to Agriculture. As he

informed President Gómez in his resignation letter, “owing to doctrinal reasons, I am not willing to collaborate with the Minister in charge there.”⁵³

Gómez’ shift from strong opposition to U.S. participation in the Colombian economy prior to assuming the presidency, to a more pragmatic position once in office, partly accounts for the confusion over import policies from one Ministry to another.⁵⁴ Pressure from competing interest groups was equally as important. Wheat growers’ demands for protectionist policies have been well documented (sometimes in quite disparaging terms) by several of Colombia’s economic historians.⁵⁵ Less well-known is the demands made by the nation’s millers for increased wheat importation, particularly millers on the Atlantic coast, far from the central highlands where Colombia’s wheat was grown.⁵⁶ As Raúl Varela Martínez, one of Colombia’s most well-respected agronomists, pointed out later that year, in 1950, Colombia imported over 40,000,000 kilos of grain valuing more than eight million pesos. This grain was then ground into flour at milling companies located in Barranquilla, Cali, and Cartagena. Lamenting the location of those millers, Varela Martínez argued that if they were all located in the highlands, then wheat production there would receive a massive boost:

...there would be no need to import wheat, being that these [milling] companies, together with the ones that already exist in th[e highlands], of which more than 96 are large capacity, would be responsible for making

⁵³ AGN, Colección Rojas Pinilla, Despacho Sr. Presidente, Ministerio de Fomento – Decreto, Box 84, Folder 20, 1-4, 4.

⁵⁴ Sáenz Rovner, *Colombia años 50*.

⁵⁵ While Bejarano describes wheat growers’ calls for protection in sympathetic terms, Kalmanovitz and López blame much of Colombia’s poor economic development in the latter half of the twentieth century on the protectionist measures implemented in favor of the nation’s cereal growers. See Bejarano, *Economía y poder*; Kalmanovitz and López, *La agricultura colombiana*, 193.

⁵⁶ Studies examining industrialists’ calls for free importation of raw materials for manufacturing generally focus on the powerful National Association of Industrialists, based in Medellín and centered largely around the textile industry. See, for example, Bejarano, *Economía y poder*; Sáenz Rovner, *Colombia años 50*; Eduardo Sáenz Rovner, *La ofensiva empresarial: Industriales, políticos y violencia en los años 40 en Colombia* (Bogotá: Grupo TM, S.A., 2007).

farmers cultivate wheat on a larger scale, using modern technology, mechanization, and fertilizer. Thus, the large landowners in the cold, flat highlands would become wheat growers on an industrial scale.⁵⁷

Varela Martínez clearly believed that the nation's agronomists could reduce or eliminate Colombia's dependence on imported wheat. The earlier part of his article, in fact, was an extended commendation of the agronomists at the Picota experimental station who had developed Bola Picota as well as the new collaboration between the Ministry of Agriculture and the Rockefeller Foundation. His praise echoes the words of other agronomists struggling to secure a central place for their profession in national economic development. The science that would create apt varieties was not in doubt, even in the face of powerful opposition arguing that Colombia could not successfully grow wheat on a large scale because it simply did not have the right soil and climate conditions. What was lacking, as these agronomists saw it, was not scientific knowledge, rich soils, or sufficiently high temperatures. On the contrary, what the country lacked was the political will. As long as cheaper imports were freely available, millers on the coast had no incentive to use domestically grown grain.

Of course, Colombia's wheat promoters in the late 1940s and early 1950s faced more than domestic obstacles to achieving their goals. The volatile global wheat market during and after World War II had left the United States scrambling to secure steady customers for the massive quantities it produced. The next section describes that market and the effects it would have on how Colombia's agronomists went about their work to promote domestic wheat production.

⁵⁷ Raúl Varela Martínez, "La importancia económica del cultivo del trigo," *Almanaque Creditario* 8 (1951): 83-85, 85.

“A Vain Effort to Become Self-Sufficient”: Shortages, Complementary Crops, and the Global Wheat Market During and After World War II

Global food shortages and scarcity during and after World War II were without a doubt serious problems for the populations who lived through them and undeniably based in the concrete reality of devastated agricultural production in much of Europe and Asia. When economists, government planners, farmers, and hungry citizens around the world spoke of “shortages,” they were not merely speaking discursively or inventing a way of understanding the globe that separated it into agriculturally “developed” and “underdeveloped” regions. Nevertheless, there are nuances to those “shortages” and some of what passed for “scarcity” was actually constructed out of political and economic imperatives that had little to do with the lack of food and much more to do with attempts to create or monopolize export markets or take advantage of high grain prices in the post-war period. Consider, for example, the different post-war policies of four of the five major wheat producing and exporting countries at the time. Government monopolies in Canada and Australia controlled the domestic purchase and foreign sales of wheat, and in both cases, those monopolies sold it on the global market at the high rates that scarcity created, while returning to farmers only the lower price at which it was sold domestically, keeping the difference for government coffers. This, in turn, led wheat farmers in those countries to decrease plantings and turn to other, more profitable crops, and thus, further decrease the global supply. Policies that

discriminated against agricultural production in Argentina while promoting industrial development, along with depletion of the soil in wheat-growing areas and the abandonment of the countryside by rural workers and small land-owners, all served to decrease the amount of grain produced there as well. Only in the United States did wheat production increase during this period, largely due to the government pricing policy that passed to farmers the high profits generated from foreign sales. High profits thus motivated farmers to increase the amount of wheat plantings, which in some cases, such as in Kansas, meant conversion of cornfields to wheat. Thus, while wheat “shortages” were undeniably partly a result of devastated agricultural fields in Europe and Asia, the deterioration of farm equipment during the war years partially caused by diversion of resources to the war effort, and the decline of rural populations as a result of the national conflicts, there were also policies in effect in some places that served to either heighten the shortage in order to earn higher profits for the government or to take advantage of the artificially higher shortages those policies helped create by producing higher quantities and monopolizing the wheat market.⁵⁸

Beyond that, there were other ways in which the language of “shortage” was used to conceal the economic interests of exporting countries, particularly the United States. In 1946, for example, the Food Supply Division of the Institute of Inter-American

⁵⁸ Helen C. Farnsworth, “International Wheat Agreements and Problems, 1949-56,” *The Quarterly Journal of Economics* 70 (May 1956): 217-248; Daniel Lewis, “Internal and External Convergence: The Collapse of Argentine Grain Farming” in David Rock, ed., *Latin America in the 1940s: War and Postwar Transitions* (Berkeley: University of California Press, 1994); Nordin and Scott, *From Prairie Farmer to Entrepreneur*. The fifth major producer was Russia, but its wheat was generally consumed nationally and it did not participate in any of the international wheat agreements signed in those years and its presence beyond the markets within its sphere of influence was minimal. See, “World Wheat Production,” *The Wheat Situation*, bulletin of the Bureau of Agricultural Economics, USDA, (hereafter *WS*) no. 98, (February 1947): 1.

Affairs sent a representative to Peru for a “two-months’ study of the current milling and baking crisis” there.⁵⁹ The Institute was founded in 1942 and empowered to “execute cooperative agreements with the other American Republics to alleviate war-caused food shortages and provide measures of continued long-term agricultural improvement.”⁶⁰ The meaning of “shortage” in this report, however, did not refer simply to the lack of grain.⁶¹ Peru’s problems were initially described as similar to those of other nations: “there is less wheat per capita available now than previously” and this meant that both the quantity and quality of bread diminished while the price rose.⁶² As the report continued in greater depth, however, Peru’s wheat problems were described less in terms of how shortages caused widespread hunger or malnutrition, and instead of how the low supply of hard wheat varieties had negative effects on the nation’s milling and baking industries. Millers and bakers had “little or no opportunity to select the wheat” that was purchased and although “Peru” was the entity that was “forced to accept [wheat] from wherever it [was] obtainable,” the consequences were felt most strongly not from a nutritional standpoint, but rather from “milling and baking standpoints.”⁶³ That this was a problem for industrial interests that preferred hard over soft wheat

⁵⁹ J.A. Shellenberger, “The Milling and Baking Industries of Peru: Report to the Servicio Cooperativo Inter-Americano de Producción de Alimentos,” Lima Peru, 1946 (Washington: Food Supply Division, The Institute of Inter-American Affairs, May 1947): i.

⁶⁰ Ibid., inside cover.

⁶¹ Confusingly, the report itself stated that the war was not the only cause of “shortage.” Although the author began with the unequivocal statement that “a food crisis exists throughout the world as a direct result of the maladjustments caused by war,” some of the specific causes he mentioned had nothing to do with the war at all, and in some cases, reflected conditions that existed long before it began. “Armed forces,” for example, were obviously war-related and a willingness on the part of countries with abundant food supplies to drastically reduce their own consumption “to provide nourishment for less fortunate nations” likely was as well. “Adverse climatic conditions,” on the other hand, had nothing to do with the war. And while for some countries “inadequate transportation” may have been a result of the global conflict, this was a problem for other countries before the war started, as was inadequate “purchasing power.” Ibid., 1.

⁶² Ibid., 1.

⁶³ Ibid., 3.

varieties rather than a problem for Peruvians in general was evident in the subsequent discussion of the “desirability” of “better than average wheat quality” for making long-extraction flour – the kind generally used in large-scale industrial baking.⁶⁴ “Better than average” in this case, meant hard varieties. The report argued that the reason none of Peru’s mills were producing “uniform-quality flour,” was the inconsistent availability of hard wheat: “the mills may find themselves milling strong Canadian wheat one week and soft Pacific Coast wheat the next.”⁶⁵ Thus, as described by the Institute of Inter-American Affairs, “shortage” in Peru was not a problem of starvation, but rather a problem of industrial production.

It was also trouble for U.S. wheat exporters – at least some of them. Throughout the report, soft wheat from the Pacific coast was consistently disparaged with descriptions such as “irregular in quality.”⁶⁶ Preferable was the hard wheat shipped from the Gulf Ports, which meant that it had most likely been grown in one of the lower Plains states.⁶⁷ It was there, in the Plains, not Peru, that the “shortage” problem dealt its most serious blow. Most of the hard wheat produced in the lower Plains states was either being consumed in the U.S. or sent to Europe, leaving little available for shipment to foreign customers, such as Peruvian millers, and thus preventing wheat growers there from taking advantage of higher global prices. This also gave Pacific wheat

⁶⁴ Ibid.

⁶⁵ Ibid., 9.

⁶⁶ Ibid., 3.

⁶⁷ Ibid. Competition between the lower Plains states and those of the Pacific Northwest for control over foreign export market was long-standing, dating to the late nineteenth century, when Pacific coast wheat growers began to develop (and obviously dominate) a new export market in Asia. See, Daniel J. Meissner, *Chinese Capitalists versus the American Flour Industry, 1890-1910: Profit and Patriotism in International Trade* (Lewiston, NY: Edwin Mellen Press, 2005).

growers the opportunity to strengthen their foreign customer base and position themselves to better compete with Plains growers once the post-war crisis in Europe had subsided. The report's author was well aware of this aspect of the "shortage" problem – he was Head of the Department of Milling Industry at Kansas State College and Senior Chemist at the Kansas Agricultural Experimental Station, "in charge of the Hard Winter Wheat Quality Laboratory" there.⁶⁸ His connection with Kansan wheat growers and millers is apparent in his assessment of Peru's "shortage" and tinged his final recommendations for solving this supposed problem. The second item on his list of recommendations, for example, was that flour in Peru be made only with "clean" rather than "dirty" wheat, euphemisms for "hard" and "soft."⁶⁹ Considering the low supply of hard varieties at the time, enacting this recommendation would have decreased, rather than increased, the amount of wheat available in Peru, making the goal behind the recommendation more evident: increase prices for Gulf Port wheat and prevent Pacific wheat growers from developing a customer base there. The Institute's report thus provides a clear example of how the term "shortage" was sometimes used to mask economic imperatives rather than describe the low amount of wheat available globally at the time.

Indeed, by early 1947, the United States Department of Agriculture (USDA) was already seeing signs of recovery in production around the world and expected imports to decrease, at the same time as record harvests in the U.S. and substantial increases in

⁶⁸ Ibid., i.

⁶⁹ Ibid., 19. Soft wheat was described as "dirty" because its softer kernel was ill-suited to industrial milling processes, shattering rather than cracking, as hard varieties did, and thus, allowing more of the bran and germ to remain in the final product, creating a flour that was equally ill-suited to contemporary industrial baking processes.

Canada and Australia were forecast.⁷⁰ Although foreign demand was likely to remain high for some time, it was clear that would not go on forever.⁷¹ The USDA fretted over how to ensure that the U.S. remained dominant in the world wheat market.⁷² Initial strategies, focused on keeping prices high despite increased supply, included holding wheat back from the global market and eliminating price supports for farmers.⁷³ But this was unsustainable over the long term. With European recovery advancing steadily, the U.S. would find itself with reduced export demand precisely at the time that the increased plantings inspired by high prices would come to market.⁷⁴ Moreover, attempting to keep prices on the global market artificially high despite increased supply would eventually have the long-term effect of further encouraging domestic production in importing countries and “reduc[ing] their demand for imported wheat in the years to come.”⁷⁵

A more long-term method of preventing that outcome was to focus on the amount of foreign exchange available to potential importers. With expanded trade, countries around the world would have more capacity to purchase U.S. wheat, and the

⁷⁰ “World Production, Excluding USSR and China, 3 Percent Above Prewar,” *WS* no. 98, (February 1947): 9; “Summary of Situation and Outlook,” *WS* no. 99 (April 1947): 3; “Record Wheat Crop in Prospect,” *WS* no. 99 (April 1947): 4 “Crops in Exporting Countries May be Larger; In Many Importing Countries Less than in 1946,” *WS* no. 99 (April 1947): 5. The forecast increases in Canadian and Australian production, in spite of reductions in the amount of wheat actually planted was attributed to favorable weather conditions and enhanced cultivation practices.

⁷¹ “Wheat Prices at High Levels, but Below Peaks Reaches in Late 1946,” *WS* no. 98 (February 1947): 7-8.

⁷² Despite the optimistic tone of some of the articles’ titles, concern for the position of the U.S. in the future wheat market became more pronounced beginning in 1947, with comments such as: “Not only will the very high level of international trade in agricultural commodities eventually be reduced, but also the share supplied by the U.S. will be considerably smaller.” See, “Exports Will Be Large throughout 1947-1948,” *WS*, No. 99 (April 1947): 6-7.

⁷³ “U.S. Wheat Price Support Under Emergency Provision Terminates with 1948 Crop,” *WS* no. 98 (February 1947): 8; “Record Wheat Crop,” *op. cit.*

⁷⁴ “Exports Will be Large Through 1947-1948,” *WS* no. 99 (April 1947): 6-7; “Wheat Supplies for Export and Carryover, Continental United States, 1909-1947,” *WS* no. 100 (June 1947): 1-2.

⁷⁵ “Wheat Prices in the United States, Canada and Australia Similar; in Argentina Higher,” *WS* no. 99 (April 1947): 10-11.

price factor would be mitigated to some degree: "Limited foreign exchange in many countries will restrict expenditures to the most essential food imports, particularly bread grains. Financing of imports will be increasingly difficult for many countries until their exports begin to recover."⁷⁶ The export capacity of other countries was thus the key to solving the long-term problem of managing record production in the U.S. and the imminent drop in demand:

As an exporting country, the U.S. has a strong interest in a large volume of international trade in wheat. [Thus], it will be necessary (1) for war-devastated countries to get back on their economic feet so that their exports will be sufficient to allow them to import wheat, and (2) for more backward countries to build up production and increase their exports so that they can buy from the U.S.⁷⁷

Over the long term, the USDA imagined that a more effective strategy was to focus on markets outside of Europe. Although noting that rice production in China and India would likely rise substantially in the coming years, for example, this was offset by the fact that their populations had grown considerably and would likely continue to do so. Hence, demand for wheat would likely remain high also. The problem, thus, was one of insufficient foreign exchange. Improving the ability of developing nations to export products to the United States, and thereby increasing their foreign currency

⁷⁶ "Summary of Situation," *op. cit.*

⁷⁷ "Wheat Prices in 1947 and 1948 are to be Supported at 90 Percent of Parity," *WS* no. 99 (April 1947): 5-6. The same was true for other crops, such as rice, cotton, and nuts. By 1949, for example, the USDA had instituted a "special research and marketing project" to examine expected global demand for nine different crops. As one of the reports explained: "For decades, United States farmers have planted each year with the firm expectation of selling an eighth of their total harvest abroad. Then during the past 10 years they upped their production about a fourth to meet the increased needs for food and farm products from all over the world. After the war, when Government-aid programs and war-created demands began to dwindle, barriers – many still standing – to a free and thriving export trade sprang from the shortage of dollars in some of our best foreign markets. Other blocks appeared in front of certain United States crops when convalescing countries began to grow more of the things they needed." See, Beryle Stanton, "United States Scouts the World's Markets," *Foreign Agriculture* (hereafter *FA*) 13 (June 1949): 123-127, 123. See also, J. H. Richter, "World Food Production and Consumption Outlook," *FA* 13 (July 1949): 154-157, 157.

holdings, could help the U.S. ensure a steady market for its surplus wheat. As the USDA indicated:

Financial aid to needy countries, permitting the purchase of food, will help wheat exports. Loans by the Export-Import Bank and the International Bank are made primarily for the purchase of services and nonfarm goods. But, some aid to agricultural trade would arise indirectly if these loans released other funds.⁷⁸

In other words, providing loans to purchase much-desired materials to help develop industrial enterprises would increase the amount of foreign exchange available to purchase wheat.⁷⁹

Another strategy for ensuring a steady market for U.S. wheat in developing countries was the promotion of “complementary crops.” This was an effort that preceded U.S. participation in World War II, having begun in 1939 with legislation designed to foster cooperation between agricultural scientists in the U.S. and Latin America. It received a boost after Truman’s inaugural speech in 1949, the famous “Four Point Speech,” which exhorted U.S. citizens to share their scientific and technical knowledge in order to help underdeveloped nations. Although the purpose behind this technical cooperation was to help “people raise their levels of living,” this was not defined in terms of increasing nationally produced food supplies, but rather as “assisting a number of Latin American countries to develop their great natural resources, and thus helping them to increase their export trade and stabilize their economies.” Rubber, fibers, coffee, cacao, tea, and medicinal plants were some of the

⁷⁸ “Exports Will be Large,” *op. cit.*

⁷⁹ One can easily see in such statements the germ of the impetus to establish the Public Law 480 Food Assistance Program in 1954, which offered U.S. surplus crops to developing nations, payable in national currencies rather than in dollars.

crops that U.S.D.A. technicians were working cooperatively on improving in several Latin American countries, clearly demonstrating the export-focused model of agricultural development at the heart of this effort. Helping stabilize Latin American economies was, ultimately, however, a peripheral goal to the central purpose of the program, which was to ensure supplies of “crops needed but not grown in the United States.” Justifying the program by indicating that it provided “an additional source of strategic and complementary crops,” the USDA asserted that “some of these crops...are vital to our national defense. The war years taught us the danger of relying on only one or two areas for commodities essential in times of emergency.” Latin America benefited from this program because the increased funds generated through foreign sales of those “complementary” and “strategic” crops meant that it was able “to buy more of the farm machinery, automobiles, electrical equipment, and many other commodities produced in the United States.”⁸⁰

Helping developing countries acquire the foreign currency necessary to continue purchasing U.S. wheat, whether through loans, aid, or increasing exports, were all longer-term strategies. Wheat analysts at the USDA, however, were more worried about the immediate future of the market. Although both prices and production remained high, that paradox contained the seeds of an impending price crash. High prices encouraged farmers to plant more wheat, which, combined with recovering production

⁸⁰ Ross E. Moore, “Agriculture and Point Four,” *FA* 13 (April 1949): 75-78, 77. *Foreign Agriculture’s* editor reiterated the same point in his introduction to that issue: “Through cooperative agricultural programs, Latin America is increasing its production of those crops that are important to the trade and defense of the Western Hemisphere. We are giving the technical assistance needed for improving and expanding their production. And our imports of these needed agricultural products benefits our neighbors by providing them with increased purchasing power for our own products.” See, Charles F. Brannan, “Pan American Week,” *FA* 13 (April 1949): 74.

in Europe, would eventually cause a market glut and depress prices. Moreover, continuing high prices could potentially spur traditional importers to develop their own national production, which, if successful, would further decrease demand and prices.⁸¹ This was particularly worrisome for the USDA, which at one point argued that the “self-sufficiency policies that the great importing countries adopted” in the 1920s caused massive market disruption and “was an important cause of the depression of the 1930s.”⁸² To forestall this, in March 1947, the International Wheat Council convened a meeting in London to discuss an agreement that would set price floors and ceilings over the coming years. Forty countries, including Colombia (and eight other Latin American nations), participated.⁸³ Two years later, the International Wheat Agreement (IWA) was finalized. Under the agreement, a price range governed how high or low wheat prices could go, regardless of market conditions. Non-IWA wheat could still be sold at market prices. Pressure to buy and sell within the price range came in the form of stipulations regarding minimum quantities that had to be bought or sold in order for a country to meet its obligations. Thus, even if market prices sank below the range floor, importing countries still had to purchase a certain quantity of wheat at the higher

⁸¹ “Wheat Prices in the United States,” *op. cit.*; “All-Time Record Crop Likely; Large Exports Again in Prospect,” *WS* no. 100 (May-June 1947): 5-6; “Wheat Prices Currently to Average above 1946-47,” *WS* no. 101 (July 1947): 6-7; “Growers to Seed as Large an Acreage as for the 1947 Crop,” *WS* no. 102 (August 1947): 7; “Import Needs Again Exceed Available Exportable Supplies,” *WS* no. 102 (August 1947): 11-12; “Another Large United States Crop in 1948 Possible,” *WS* no. 103 (September-December 1947): 6.

⁸² Robert B. Schwenger, “Trends in World Agricultural Trade,” *FA* 3, (June 1949): 130-133, 131.

⁸³ “Conference Opened March 18 to Discuss International Wheat Agreement,” *WS* no. 99 (February-April 1947): 9. This was not unprecedented. The International Food Emergency Committee organized a special sub-section called the Committee on Cereals in June 1943, to ensure fair distribution of global wheat supplies and prevent famine and hunger during and after the war. While the committee began with only four members – the U.S., Canada, Australia, and Britain, it eventually grew to have over twenty member countries. It was disbanded in April 1949, around the time that the International Wheat Agreement was established. See, Gordon P. Boals, “The Cereals Committee – A Historical Review,” *FA* 13 (June 1949): 139-142.

minimum price. The reverse applied for exporting countries; if market prices rose above the price ceiling, they were required to export a certain quantity at the lower maximum price before they could offer non-IWA wheat for sale.⁸⁴

A number of problems immediately arose. To begin with, in 1949, the USDA's fears that prices would drop were realized. In response, three of the world's five main wheat exporters – Canada, the United States, and Australia – worked together to artificially keep the price of non-IWA wheat above the maximum price set by IWA. Later, when prices rose as shortages and demand increased during the Korean War, those same three countries violated IWA stipulations in a variety of ways in order to take advantage of the higher prices. In 1951-52, for example, Australia claimed that it had had a bad harvest and asked to be released from its export quota that year, in order to ensure sufficient domestic supply. This reprieve was granted. But then afterward it sold “appreciable quantities of high-priced export wheat outside the Agreement and carried larger stocks than were essential on August 1, 1952.”⁸⁵ Meanwhile, Canada declared that it would offset Australia's “bad harvest” by increasing the amount it sold; it offered, however, only lower-quality grain. At the same time, it sold vast quantities of higher grades of wheat to Britain at the higher non-IWA prices. That same year, when importing countries in the developing world complained that they could not find enough wheat to purchase and pressed the International Wheat Commission, which oversaw the IWA, to enforce the requirement that exporting countries sell a minimum quantity, Canada was the only one to comply, but did so by offering only lower-grade

⁸⁴ Farnsworth, “International Wheat Agreements.”

⁸⁵ *Ibid.*, 227.

grains at non-IWA prices. Also in 1951, all three countries unilaterally added a 5-6 cent “carrying charge,” which raised the price and completely violated the spirit of the agreement.⁸⁶

While developing countries were harmed by the monopolistic maneuvers of the three largest wheat-exporting countries, Britain was as well, and it refused to participate in the new agreement negotiated in 1953. As it was Canada’s largest customer, this led the latter to ignore IWA stipulations and sell the vast majority of its wheat to Britain, outside of the agreement. An artificial shortage of IWA wheat resulted and kept its price at the maximum level, despite again-increasing production. Predictably, this led to a breakdown in the agreement, and a lack of interest in renewing it once it expired in 1956.⁸⁷ With the British wheat market tied to Canada (and Australia) and revitalized production throughout the rest of Europe, this further spurred the United States to seek markets in the developing world. As mentioned earlier, the PL480 Food Assistance Program of 1954 was one response. Another was to discourage efforts to achieve self-sufficiency.

Long before World War II even ended, in fact, the USDA had already made a clear stand on Colombian wheat production. As part of the earlier mentioned “complementary crops” program, in 1942 Kathryn H. Wylie, an associate agricultural economist at the USDA, compiled a report on Colombian agriculture, based on information provided by sources such as the Ministry of the National Economy, the Pan-American Union, the Colombian Coffee Growers’ Federation, the United Fruit

⁸⁶ Ibid., 226-227.

⁸⁷ Ibid.

Company, and the U.S. Bureau of Foreign and Domestic Trade, among others. The report concluded that in spite of transportation problems, “primitive” cultivation methods (except in banana and coffee production), insufficient use of improved seed varieties, and inadequate training at the country’s schools of agriculture, the potential for developing successful “complementary crops,” such as copra (dried coconut meat, the source of coconut oil), cacao, and sugar was very high. This was partly due to the “Government of Colombia...becoming more and more interested in the development of the agricultural industry.”⁸⁸

That same interest, however, was portrayed as having either no impact, or a negative one, when it came to developing crops designed to achieve self-sufficiency:

Colombia has imposed high tariff duties on imports of the principal staple articles of food and fiber in a vain effort to become self-sufficient in the production of these commodities. The outstanding result of this policy has been increased living costs within Colombia, especially for its low-income groups. Production of some crops has increased under the stimulus of the protected price, but not to the point of independence of foreign supplies.⁸⁹

Although the report discussed a variety of food products promoted under these efforts, including corn, rice, cassava, plantains, and sugar, wheat was singled out as a particularly egregious example: “wheat is raised on land and under climatic and soil conditions quite unsuitable for its economic production.”⁹⁰ Never mind that on further elaboration, the report noted that Colombia had needed to import only 15% of the wheat it required in 1938; increasing production was deemed an impossible task, being

⁸⁸ Kathryn H. Wyle, “The Agriculture of Colombia,” *Foreign Agriculture Bulletin* (USDA) No. 1 (October 1942): 1-160, 143.

⁸⁹ *Ibid.*, 31.

⁹⁰ *Ibid.*, 31.

that most of it “was grown in the upland country where yields are low, the climate is cool, and the small farms are located on sloping hillsides.”⁹¹ The report did acknowledge the social, rather than technical nature of the last problem, indicating that “if production were transferred to more suitable regions, better yields and more intensive cultivation would be possible.”⁹² Land reform was not mentioned as a potential solution to the problem of peasant production on steep slopes – where most of Colombia’s wheat was, in fact grown at the time, while the flat valleys were increasingly being used for cattle-raising. In the end, this was not a priority for the USDA, evident in the report’s suggestion that before any efforts were made to expand the wheat self-sufficiency program, more studies of “the relative advantage of wheat as compared with other crops in this region” were required.⁹³ In other words, the report subtly suggested, Colombia should return to the pre-Depression economic model based on comparative advantage.

For Colombia’s agronomists, the suggestion that soil and climatic conditions in the highlands precluded increased production disparaged the efforts that they had already made to develop Bola Picota, as well as the growing success in the attempts to promote its use in the highland regions. In subsequent years, those agronomists would increasingly rely on research conducted in the United States (and other parts of the world) to counter the notion that wheat was unsuitable for Colombia’s growing conditions. The next section describes those efforts.

⁹¹ Ibid., 34.

⁹² Ibid., 34.

⁹³ Ibid., 34.

“Long-Day” Plants, “Short-Day” Varieties: *Agrónomos* Confront U.S. Wheat Imports

Spurred by the success of Bola Picota in increasing wheat production, Colombia's agronomists refused to accept that their country's climate and soil conditions precluded them from achieving self-sufficiency in this food crop. A recurring theme in the introductions to several of the master's theses or campus presentations at the UNAL's Faculty of Agronomy between 1948 and 1952 was that of wheat's origins. Luís F. Chamorro T., in his 1952 thesis, for example, included a section on the history of wheat and its introduction to the department of Nariño, the focus of his study. Historians disputed the location of wheat's origins, he noted, some arguing that it was in the Greek city of Nisa in the Jordan Valley (now part of Israel), others claiming that it was in Mesopotamia and others still in India. Meanwhile, the Chinese claimed that it was native to their country, and Linnaeus argued that it originally evolved in Siberia. What was known for certain, according to Chamorro, was that wheat was already being cultivated in China and Egypt 6,000 years ago.⁹⁴ In a 1955 lecture about the problems of wheat cultivation in Colombia, Manuel Rosero repeated these possibilities and, citing the work of “some Russian authors” added Afghanistan and Central Asia to the list. Rosero also discussed the work of Russian geneticist Nikolai Vavilov, known for his work identifying the connection between different geographic locations and specific

⁹⁴ Luís F. Chamorro T., “El cultivo del trigo en Nariño,” unpublished master's thesis, Faculty of Agronomy, National University of Colombia, Medellín, 1952, 5.

varieties of the same plant.⁹⁵ Thus, *Triticum vulgare*, along with other wheat varieties with twenty-one chromosomes, originated in South-East Asia, while *Triticum compactum* emerged in Afghanistan, and *Triticum spelta* in Austria and Germany. Other varieties emerged in places as distinct as Turkey, Iran, Turkmenistan, and the Caucasus Mountains.⁹⁶

Clearly, none of these regions are at the same latitude as Colombia. Their inclusion in analyses of the problems and possibilities of wheat production was not meant to provide evidence that wheat could be grown with equal success in Colombia, simply due to similar climatic conditions. Rather, including them helped counter USDA claims that wheat was not an apt crop for Colombia. If different varieties could thrive in such distinct climates as the ones Vavilov suggested, then it was possible to imagine that, with scientific time and attention, varieties apt for Colombia could be developed. Countering claims from the United States that Colombia's quest for self-sufficiency in wheat was a "vain effort" was not the only reason for their inclusion, however. Discussing wheat varieties' different origin locations strengthened an argument about agronomy that was meant as equally for a Colombian audience as a foreign one.

Recall that these agronomists operated in an environment in which they still had not fully gained the credibility enjoyed by the nation's engineers. Several theses praised the important contribution of agronomists to improving the nation's agriculture and

⁹⁵ S.C. Harland, "Nicolai Ivanovitch Vavilov. 1885-1942," *Obituary Notices of Fellows of the Royal Society* 9 (November 1954): 259-264; E.E. Leppik, "The Life and Work of N.I. Vavilov," *Economic Botany* 23 (April-June 1969): 128-132; Barry Mendel Cohen, "Nikolai Ivanovich Vavilov: The Explorer and Plant Collector," *Economic Botany* 45 (January-March 1991): 38-46.

⁹⁶ Manuel Rosero, "Algunos problemas sobre el cultivo de trigo en Colombia," presentation at the Faculty of Agronomy, National University of Colombia, Medellín, October 15, 1955, 1.

lamented the dire effects of rejecting or ignoring their work. Some of them did so subtly, such as Rosero, when he claimed that good yields could only be achieved through the use of carefully “selected seeds made from pure varieties, such as the ones at the Tibaitatá Experimental Station.”⁹⁷ Similarly, Chamorro claimed that, after import restrictions between Ecuador and Colombia were put in place, leaving the people of southwestern Colombia without grain, the department was able to quickly develop a wheat industry there because of the Ministry of Agriculture’s campaign, led by agronomists – a “small group of selfless servants who performed their duties throughout the length and breadth of the department [of Nariño].”⁹⁸

The strongest statement, however, came from Luís Hernando Correa Cancino in his 1948 thesis about wheat production in Barragán, Valle, when he directly connected the important role of agronomists with the environmental arguments about the crop’s origins. It was crucial to guard against pessimism, he warned. The country was beginning to organize its agriculture “rationally,” he claimed, rejecting the old practice of “listening to the compromised opinions of groups antagonistic to agriculture, [who] incompetently and irresponsibly politicize the failure of every rural initiative, while rejecting without first analyzing the well-supported opinions of the agricultural technicians.”⁹⁹ These naysayers and special interests had denigrated previous efforts to more rationally cultivate other crops such as sugar cane, rice, cacao, tropical fruits, and “even cotton.” Agronomists proved them wrong, Correa proudly declared, showing

⁹⁷ Ibid., 7.

⁹⁸ Chamorro, “El cultivo del trigo,” 9.

⁹⁹ Luís Hernando Correa Cancino, “Una orientación técnico-económica de la industria triguera de Barragán,” unpublished master’s thesis, Faculty of Agronomy, National University of Colombia, Medellín, 1948, 33-34.

that it was possible for Colombia to implement or improve production of these crops, even if complete self-sufficiency remained an elusive goal. Those same naysayers could be blamed for that, he argued, since a great deal of time and money had been lost trying to “convince those ignorant people of the truth.”¹⁰⁰

Correa was angered by the fact that despite efforts to elevate the profession of agronomy, it still did not enjoy full credibility. Nowhere was this more plainly evident than in the opposition that had arisen to domestic wheat production. “The same destructive criticism” that had been employed against the other crops, was now being directed toward wheat, he declared. The argument had been adapted, however, this time claiming that wheat couldn’t be grown nationally because it was an “exotic crop” for Colombia. Correa’s response to this adaptation was to combine the defense of agronomy as a useful science with positive effects on the national economy and the environmental argument that plants could adapt to different climates and soil conditions, demonstrated by the fact that so many different varieties of one plant could be found in so many distinct places of the globe. The result was a strong refutation of both domestic indifference or denigration of agronomy and foreign criticism of Colombia’s efforts to achieve self-sufficiency in wheat:

No country in the world has had the privilege of being the place of origin of all the plant varieties that feed humanity today, and yet, nevertheless, what a surprise the civilized countries gave to the rest of the world when they took exotic plants to their territories and, thanks to their creative agricultural techniques, were able to develop and make good use of them, as if they were native plants.¹⁰¹

¹⁰⁰ Ibid., 34.

¹⁰¹ Ibid. The USDA’s Office of Foreign Agricultural Relations (OFAR) affirmed this only a year later, when it reported on the establishment of a cooperative program on agricultural science between the United States and the countries of

Without any specific examples of what he meant by “exotic plant,” it is difficult to know how critically or uncritically he used the term. Was an “exotic plant” the cinchona bark, for example, that was smuggled out of Peru, Ecuador, and Colombia in the 19th century and taken to the Dutch colonies in Indonesia to produce quinine? Or was it the potato transplanted from the Andes in the 16th century to Western Europe, where it quickly spread and became a staple crop? In either case, the message was clear: if the Western Europeans could turn “exotic” plants into “native” ones in their countries, through the application of agricultural science, then there was no reason to assume that Colombia could not do the same for wheat.

The theses on wheat completed between 1948 and 1952 at the Faculty of Agronomy generally fell into one of two categories: those emphasizing social and economic issues and those focused on experimental research. Correa’s thesis was one of the former, and his was also one of the most polemical, forcefully decrying the interest groups in Valle and Cundinamarca that inhibited the development of Barragán’s wheat industry. Thus, his strong statement countering the argument that wheat was an unsuitable crop for Colombia was characteristic of his thesis as a whole. Other theses writers, however, made the same argument, also forcefully, but in far less confrontational terms. Instead, they presented their objections in seemingly universal,

Latin America. Describing the importance of agricultural research, an article in the OFAR’s magazine *Foreign Agriculture* pointed out that the tobacco and corn found growing in the United States by European colonists was not native to North America, but had actually been brought north by Native Americans from tropical regions. “As a matter of fact,” the article continued, “all major crops now grown in the United States originated in other countries. Most of them have been improved, in quality and yield, by strains brought in from various parts of the world. Improved varieties of wheat, responsible for the big yields of recent years, trace their ancestry back to Europe and western Asia, while improved varieties of oats trace their ancestry to South America and Australia.” See Ross E. Moore, “Agriculture and Point Four,” *FA* (April 1949): 75-78.

scientific terms, by reporting results of their agricultural experiments, designed to demonstrate that it was indeed possible to develop wheat varieties that would grow well in Colombia.

The goal of self-sufficiency is strongly evident in these theses. In 1952 four master's theses reporting results of specific experiments on wheat were completed at the National University's Faculty of Agronomy.¹⁰² All used seed variety as a variable. In one experiment, various varieties were tested in the farinology lab to determine their milling and baking qualities. The effects of photoperiodism and fertilizer applications on different varieties were studied in two others. Proving that varieties apt for Colombia could be successfully developed was the stated goal of only one of the theses, but all of them made that argument, even if indirectly.

Francisco Villamizar Andrade, for example, wrote his thesis after a year of research in Uruguay, funded by that country's Ministry of Agriculture and by Colombia's National University. The purpose of his thesis was to demonstrate the best method for measuring how different wheat varieties responded to variables such as fertilizer application, and timing and density of plantings. Expanding on a simple Latin square, a practice in vogue in agronomic research throughout the world since the 1910s and refined in the early 1940s, Villamizar stressed that careful planning of an experiment was absolutely essential for reliable results.¹⁰³ Words and phrases such as

¹⁰² All were completed as part of the UNAL's Faculty of Agronomy, two at the Medellín campus, and two in Valle.

¹⁰³ The Latin square allowed the agronomist to correct for the fact that fertility was not uniform on an experimental field – climatic, soil, topographic, and management conditions had strong effects at micro-levels that were often impossible to predict. By planting experimental fields in some version of a Latin square, a researcher reduced the chance that results could not be replicated, and would thus be unreliable, owing to environmental conditions.

“meticulousness,” “minuteness,” “neatness of execution” and “exactness of the weights and measures of the principal variables” peppered his concluding comments on research design. Calculation errors or poor statistical analysis were minor issues in comparison to faulty research design – he referred to the latter as “original sin” and “intrinsic imperfection.” There was no place for carelessness and it was the duty of every agronomist to dedicate the necessary time to planning; according to Villamizar, the preparatory stages “constitute essential labor, which must be attended to with a sense of maximum responsibility on the part of the relevant researcher.” For Villamizar, this was so important that it required agronomists to actually get their hands dirty. It wasn’t enough for them to merely design the experiment on paper and leave the physical labor in the fields to research assistants or farm hands. On the contrary, modern agronomists (those from upper class backgrounds, anyway) needed to overcome their long-standing refusal to engage in anything resembling manual labor:

In all these questions, there is no limit to the diligence and attention with which the new man of science could oversee the practical execution of these manual tasks, trying to personally participate in them, if it were necessary or convenient.¹⁰⁴

The specific results of his experiment on nine wheat varieties were inconsequential, at least for Villamizar’s purposes. He participated as a junior member of an international wheat experiment, a joint project among Uruguay, Brazil, and Argentina, led by senior researchers from those countries and using native seed varieties. With the funding he had received from the UNAL and the Uruguayan

¹⁰⁴ Francisco Villamizar Andrade, “Planeamiento del ensayo internacional de trigos,” unpublished master’s thesis, Faculty of Agronomy, National University of Colombia, Palmira, Valle, 1952, 29-30.

Ministry of Agriculture, he was put in charge of the project design and implementation in that country, under the supervision of Gustavo J. Fischer, the Deputy Director of the Estanzuela Phytotechnic Institute. Upon his return to Colombia, he did not present the results of his experiments on wheat varieties native to Brazil and the Southern Cone, as this would have been of little interest to the Faculties of Agronomy in Colombia, focused as they were on practical problems of national agriculture. The methodology of his research experiment would have been of great interest, on the other hand, providing a blueprint for other researchers to follow and increasing the perception that the work of Colombia's agronomists was equal to the work done in other contexts. Villamizar's thesis thus joined, although indirectly, the chorus of agronomists' voices claiming that Colombia had the expertise necessary to develop productive and adapted wheat varieties.

Ricardo Chaves' thesis research on fertilizers and wheat was also conducted abroad. In 1948 he received support from the UNAL and the Rockefeller Foundation (RF) to study in Mexico at the Ministry of Agriculture's Oficina de Estudios Especiales (OEE - "Office of Special Research"). His research centered on what agronomists called "cultural practices" - the preparation of soil, pest management, and fertilizer use. Specifically, he studied what combination of nitrogen, phosphorous and potassium applications most effectively increased wheat yield in different soil conditions. Again, while the specific results may have only been applicable to the regions of Mexico under study, the research design and methodology were relevant to Colombia. Some of Chaves' concluding comments, in fact, could just as easily have been written for his

own country: "Wheat yield per land unit in Mexico, which is low in comparison with that obtained in other countries that produce this cereal, can be improved with better cultural practices."¹⁰⁵

Much of his introductory section also echoed the wheat production problems of Colombia. He described how yield had been increasing in recent years, but was still insufficient "to satisfy national demands." The most obvious solution to this problem was to increase the acreage dedicated to wheat cultivation. Displacement of other crops would be necessary for that to happen, however, and that would likely generate social conflict. Thus, for this solution to be implemented, government intervention would be required. Opening new lands for wheat cultivation was another possibility, but this couldn't happen without substantial initial investment, another solution requiring significant government involvement and resources.¹⁰⁶

Ultimately, then, the best solution for meeting Mexico's wheat needs, according to Chaves, was increasing production using the same amount of land already in use, an achievable goal, but one that required "conscientious and reflective research." That this was possible was made clear in Chaves' explanation of why production in Mexico was lower than it could be, an explanation with strong implications for Colombian wheat production as well. According to Chaves, the reasons that yield was so low in Mexico included "low quality seeds, lack of mechanization, and loss of soil fertility due to continuous cultivation without any policies regarding rotation and fertilizer or erosion

¹⁰⁵ Ricardo Chaves, "Contribución al estudio de los fertilizantes para el trigo en México," unpublished master's thesis, Faculty of Agronomy, National University of Colombia, Palmira, Valle, 1952, 39.

¹⁰⁶ *Ibid.*, 2-3.

and land tenure.”¹⁰⁷ Climate is notably absent from this list of social and technical problems. Obviously, Mexico is at a different latitude than Colombia, and this may not have been as important of a question for the OEE. But aside from climate issues, Mexico’s wheat production problems, as described in Chaves’ thesis, were essentially the same as Colombia’s. Clearly, then, it would be easy to conclude that if “conscientious research” could solve the problems of one country, it could do so for the other as well.

Beyond such similarities between Colombia and Mexico, Chaves’ research had more significant implications for wheat research and production in his own country. Chaves drew on research conducted a few years earlier in Iowa regarding the “efficiency” of increasing yield through nitrogen fertilizer.¹⁰⁸ He made a fundamental adaptation, however. Converting the English units of measurements used in the Iowa research to the metric system used in Mexico and Colombia resulted in “very low values,” Chaves reported.¹⁰⁹ To solve this analytical problem, he altered what was being measured and used a different mathematical formula to reach his conclusions. While at first glance this may not seem too consequential, those changes reflected the overall goal of his Mexican studies – mastering research methods that would help him reduce Colombia’s reliance on agricultural imports.

Using either random blocks or Latin squares, C.A. Black, L.B. Nelson, and W.L. Pritchett conducted a series of experiments on different rates of nitrogen applications on

¹⁰⁷ Ibid., 3.

¹⁰⁸ C.A. Black, L. B. Nelson, and W.L. Pritchett, “Nitrogen Utilization by Wheat as Affected by Rate of Fertilization,” *Soil Science Society of America, Proceedings* 1946 11 (1947): 393-396.

¹⁰⁹ Chaves, “Contribución al estudio,” 20.

wheat in fifteen locations in Iowa. The goal was to rectify the nitrogen deficiency in the state's soils, which reduced its wheat output in comparison to corn and oats. They set out to do this by determining the optimal quantity of nitrogen required to reach a maximum level of yield increase without crop loss due to lodging – a phenomenon that plagued wheat grown with significant fertilizer inputs, in which the stalks grew so tall due to the addition of nitrogen that they could no longer support their own weight and fell over. Quantities of nitrogen applied per acre ranged from 20 to 128 pounds. The researchers calculated nitrogen's "efficiency index" by examining how much needed to be applied in order to produce one bushel of wheat (approximately sixty pounds). As they found that the higher the quantity of nitrogen applied, the lower the resulting yield per acre, their efficiency index reflected an inverse relationship.¹¹⁰ Thus, on average, it took only 2 pounds of nitrogen to produce one bushel when it was applied at the rate of twenty pounds per acre, but it took 2.9 pounds to produce that same bushel when forty pounds were applied, and 5.9 pounds when eighty pounds per acre were applied. In the end, they determined that the optimal range (depending on soil conditions) was between twenty and forty pounds per acre. It is important to note that variety made a difference. One experiment achieved the highest yield with little lodging while applying 128 pounds. A different variety had been used for that experiment, however. Pawnee, the variety used in the rest of them, was known for its "short, stiff straw" – making it more susceptible to lodging.¹¹¹

¹¹⁰ Black, et. al., "Nitrogen Utilization," 393; Chaves, "Contribución al estudio," 19.

¹¹¹ Black, et. al., "Nitrogen Utilization," 394.

Chaves didn't fully explain why conversion from English units to metric ones caused such analytical problems.¹¹² But rather than reaching conclusions based on an inverse relationship between the amount of fertilizer applied and increased yield, he used a direct relationship to define optimal quantities of fertilizer to be applied. This worked because he also changed the goal of his measurement. In the Iowa study, the goal was ultimately to determine how little fertilizer was necessary to grow one bushel of wheat. The study centered on that fixed quantity. Chaves, on the other hand, did not seek to reach a specified quantity of wheat, but rather, simply determine how much of an increase could be achieved by applying a mix of nitrogen, phosphorous, and potassium.

Considering the different agricultural conditions in the United States, Mexico, and Colombia, this made sense. In the U.S. at the time, fertilizer use was widespread and the fertilizer industry well developed and ready to supply all the quantities that a farmer needed or desired and could afford to buy.¹¹³ A greater danger, in fact, was over-application, hence the need to determine an upper limit after which a farmer would experience diminishing returns. Neither Mexico nor Colombia at the time, on the

¹¹² Perhaps the "low values" to which he referred were partly the result of differences in the size of the test plots and the amount of fertilizer applied. While the Iowa researchers applied nitrogen to acres, Chaves applied it to hectares, a unit of land approximately two and a half times larger. In addition, following the determination by Black and his collaborators that the optimal range was twenty to forty pounds, Chaves applied no more than 40 kilos to any test plot. But, of course, a kilo is the equivalent of 2.2 pounds. Thus, he applied more fertilizer over a larger area of land. While the larger land unit might seem to cancel out any effect of applying a larger quantity of fertilizer, the correspondence is not one-to-one, and that could perhaps account for some of the "low values." As an agricultural scientist, however, it seems unlikely that he would not have been aware of these potential problems and devised some kind of solution.

¹¹³ Deborah Fitzgerald, *Every Farm a Factory: The Industrial Ideal in American Agriculture* (New Haven: Yale University Press, 2003). Fitzgerald examines the growing influence of the nation's agricultural science researchers at land-grant colleges throughout the country in the 1920s, which spurred farmers, both large and small, to organize their farms along industrial lines. "Efficiency" became a goal and was widely discussed by both farmers and agricultural scientists.

other, had well established fertilizer companies, and only the wealthiest of farmers could afford to pay the high prices for imported products. Thus, the problem in those contexts was getting farmers to use fertilizers in the first place, and a study demonstrating that application of a certain quantity of nitrogen and phosphorous resulted in a harvest increased by a corresponding amount made more sense. Indeed, it was likely that Chaves' application of only between 20 and 40 kilos of fertilizer reflected not only his adoption of the optimal range suggested by Black and his fellow researchers in Iowa, but also, the limited supplies available in Mexico at the time, even at the country's agricultural research stations.¹¹⁴

Adaptation of experimental design to fit local conditions was one method used by Colombia's agronomy students in 1952 to construct a nation that could be self-sufficient in wheat. Another was to enter a scientific debate among agricultural researchers in the United States, a debate with strong implications for Colombia. Hernando Reaga Santos was deeply committed to the goal of self-sufficiency in wheat, which his thesis made clear from the very first page. He was appalled that Colombia had to import almost two-fifths of the wheat it consumed. Worse still, this did not even satisfy the nation's nutritional requirements. Citing studies by the National Institute of Nutrition, Reaga lamented that while Colombia needed 375,000 tons annually, only approximately 175,000 tons were actually available from imported and domestic

¹¹⁴ India faced a similar problem in the 1960s. The Indian Planning Commission, for example, noted that "considering India's scarce resources," a recommendation by agronomists that nitrogen be applied at a rate of 120 kilos per hectare was "wasteful" and instead recommended that only 40 kilos be applied. After much debate, the Ministry of Agriculture adopted the agronomists' recommendation, arguing that 40 kilos did not sufficiently increase yield. See Haldore Hanson, Norman E. Bourlaug, and R. Glenn Anderson, *Wheat in the Third World* (Boulder, CO: Westview Press, 1982), 53-54.

sources. Sadly, the future looked even bleaker, and agronomists were partly responsible. Although Reaga did not blame them outright, he claimed that low national production was the result of the poor varieties then cultivated commercially: their yields were low, vegetative periods too long, disease resistance almost nonexistent, and overall quality poor. This, in turn, encouraged well-off wheat farmers to abandon grain cultivation and plant grass for cattle instead, further exacerbating the problem. But he couldn't fault the landowners. He understood that, while investing in cattle was initially expensive, it paid off quickly and well. It was not their fault that conditions for growing wheat were unfavorable. Convincing them to keep their lands dedicated to wheat required a major transformation, which he wistfully imagined:

How different the situation would be if these same landowners could be offered wheat varieties that were high yield, early blooming, disease resistant, adapted to different climatic regions, and of proven quality, at the same time as they could be assured of stable and remunerative prices, without fear that during harvests the door for imports would be opened, sometimes for commendable motives, but sometimes debatable ones.¹¹⁵

Reaga's rosy vision is intriguing for the additional elements he did not include in his initial assessment of the nation's wheat problem. His earlier claim that landowners abandoned wheat production because good varieties were not available focused solely on technical problems that agronomists could solve. But, his subsequent portrait of improved national production included market issues that agronomists had no control over at all – market issues that he had only discussed in a more abstract way up to that point. It also muddles the issue of Colombia's lack of self-sufficiency: were imports the

¹¹⁵ Hernando Reaga Santos, "Características y posibles usos de algunos trigos colombianos," unpublished masters' thesis, Faculty of Agronomy, Universidad Nacional de Colombia, Medellín, 1952, 1-2.

cause or the effect? Initially, he seemed to suggest that imports were an effect of inadequate varieties and that the solution to this was technical. If more appropriate varieties were developed – a technical problem – then, imports wouldn't be needed because farmers could grow all the grain the country needed. Better technology could even correct the market, he claimed. Varieties of “proven quality” would stabilize prices, presumably giving farmers further incentive to resume or remain in wheat production. Nevertheless, his subsequent assertion that imports were allowed at inopportune times suggests that the reason farmers turned away from wheat production had nothing to do with technical issues at all. What accounts for these confusing statements?

His subsequent discussion of the problems facing the milling industry clarified the confusion he had created and clearly defined the problem as a technical one. Imports were necessary, if unwelcome, because the low volume of domestic production prevented the nation's millers from producing a standardized, reliably high-quality product. Instead, they were forced to purchase anything that they could find, including “grains of different origins, and of varieties,” resulting in flour mixtures made with grains of “variable quality, dissimilar characteristics, and worst of all, unknown [characteristics].”¹¹⁶

This, Reaga asserted, was a technical problem that agronomists could fix. He was firmly convinced that Colombia had the capacity to become self-sufficient and that its agronomists would be at the forefront of that movement for freedom from imports (at

¹¹⁶ Reaga Santos, “Características y posibles usos,” 3.

least some of them). But, to make that happen, research on how varieties performed in the field was insufficient. If a variety was unacceptable for milling and baking processes, he argued, then it was essentially worthless, no matter how early it matured, how high its yield, or how strong its resistance to local pests and diseases. Therefore, Reaga set out to determine how successfully some of the new varieties that had been developed (or were still in developmental stages) performed in milling and baking tests, in order to determine which varieties were useful to continue pursuing and which could be discontinued.

To guide him in this endeavor, Reaga drew on two different studies of wheat quality that had been recently published. The three co-authors of the first study were all affiliated with the U.S. Department of Agriculture, one in the Agricultural Research Administration and the other two in the Production and Marketing Administration. C.C. Fifiield, Ray Weaver, and J.F. Hayes ultimately wanted to shift the way that wheat quality was discussed in agricultural research. They pointed out that numerous studies had clearly demonstrated that there was a “curvilinear relation...between protein content of wheat and bread loaf volume.”¹¹⁷ In other words, flour with protein content below 7% produced a loaf of bread with low volume; as protein content increased, loaf volume increased accordingly, but only up to a certain point. After protein content passed 19%, loaf volume began to decrease proportionally. While Fifiield, Weaver and Hayes did not disagree with this, they also believed that it was not useful to emphasize it. More appropriate, they believed, was to focus on the linear relationship that did exist

¹¹⁷ C.C. Fifiield, Ray Weaver, and J.F. Hayes, “Bread Loaf Volume and Protein Content of Hard Red Spring Wheats,” *Cereal Chemistry* 27 (September 1950): 383-390, 383.

between loaf volume and protein content within the 7-19% range. Only in that way, would researchers be able to adequately evaluate and characterize different varieties and the effect of environmental conditions. Using 589 samples of ten different varieties, grown at twenty-five experiment stations in nine states over the course of four growing seasons, Fifield and his collaborators determined that there was a consistently linear relationship between protein content and loaf volume across all the growing seasons for each of the varieties, except for one of them, which had a lot of variation, and which was “probably due to the relatively small number of samples for this variety.”¹¹⁸

Fifield, Weaver, & Hayes reached this conclusion in spite of indications that protein content was not always positively correlated with loaf volume. Protein quality made a difference, as well, demonstrated by differences in loaf volume among varieties with the same protein content. For example, although Henry, Ceres, and Pilot X Mida were all varieties with 12% protein content, the volume of the loaves they produced was 846 cc., 779 cc., and 783 cc., respectively.¹¹⁹ In the end, however, this was inconsequential for the study’s authors. Although they acknowledged that “loaf volume, of course, depends both on the quality and the quantity of the protein in the flour as well as on certain other variable factors,” they ultimately brushed that conclusion aside to claim instead that protein content was a “reliable” measure of “gluten quality and the potential breadmaking value of varieties of wheat.”¹²⁰

¹¹⁸ *Ibid.*, 385.

¹¹⁹ *Ibid.*, 388.

¹²⁰ *Ibid.*, 389-390.

Other researchers did not accept this simplified conception of wheat quality, in which protein quantity was the most important variable, and it was considered relatively constant within a variety. At the University of Missouri's Agricultural Experiment Station, for example, Ferne Bowman, Leta Maharg, and J.M. Poehlman, two home economists and a professor of field crops, respectively, saw a more numerous and multifaceted set of variables determining quality. Some of those variables were "inherent in the wheat itself and...change with variety." Some wheat varieties responded dramatically to environmental conditions, while others did so only "slightly." Milling procedures also affected flour quality. In the end, flour quality was determined by three inter-related factors: "...kind or variety of wheat, the environment where grown, and the skill of the miller."¹²¹

Unlike the USDA study, all the wheat in this study came from just one experimental station. Thirty-three different varieties, grown over eight years were tested. Using similar procedures as Fifield and his collaborators, such as baking tests, and physical and chemical tests to determine protein, ash, and moisture content, the Missouri researchers reached a far different conclusion than those from the USDA: "Protein content is important as a measure of gluten strength insofar as it indicates the quantity of gluten present in the flour. It does not give any information regarding the quality of the gluten."¹²²

¹²¹ Ferne Bowman, Leta Maharg, & J.M. Poehlman, "Testing Missouri Soft Wheat Flours for Quality: Methods, and Variety Comparisons," University of Missouri, College of Agriculture, Agricultural Experiment Station, Research Bulletin 480 (July 1951): 1-71, 4.

¹²² *Ibid.*, 20.

While Reaga drew from both of these studies to conduct his research, he relied more on the methods and conclusions of the Missouri research team. Referring to Fifield's use of protein quantity as a measure of gluten quality in his conclusion, for example, he countered by noting that other researchers had "proved that environmental conditions are more influential than varietal ones."¹²³ This was particularly important as Reaga had used only 10 varieties, all of them grown at the Francisco de Caldas experimental station near Bogotá, except for Ecuatoriano 150, which came from the Obonuco station in Nariño (southwestern Colombia). Reaga recognized that this was a potential shortcoming of his research, being that varieties grown in other parts of the country might have different protein content:

Naturally, vegetative period varies with the climatology, and it is highly probable that these varieties would vary a bit if they were cultivated on sites away from the Experimental Station, which is like a little island on the Sabana de Bogotá with its own climate and soil. The same can be said for yield, as great variability has been observed on different soils, climates, and reactions to the attacks of different [wheat] rusts."¹²⁴

Nevertheless, he still made recommendations about which Colombian varieties should be promoted in order to ensure more standard quality for the nation's millers. Intriguingly, at the Caldas experimental station near Bogotá, Reaga was able to conduct all the same physical and chemical tests on grain and flour that the USDA and Missouri researchers were able to do, some of it involving very specialized procedures or equipment such as the "mixogram" (a high-speed, industrial strength mixer with a pin measuring torque used to determine the protein content of flour), but was not able to

¹²³ Reaga Santos, "Características y posibles usos," 25.

¹²⁴ *Ibid.*, 8.

conduct all the baking tests the others had done as the Caldas laboratory lacked a sufficient number of “uniform baking pans.”¹²⁵

Insufficient baking tests notwithstanding, Reaga determined that Bola Picota, the variety commonly grown in Colombia after it had been developed and introduced in the 1930s, ranked the lowest among the ten varieties he had tested in terms of quality. A new variety then in development with the assistance of the Rockefeller Foundation, known as Menkemen, ranked fourth in the baking tests. However, when combined with the agronomic measures of quality, such as resistance to pests, high yield, and a short growing season, it was actually the highest quality variety available in Colombia at the time. Such a result must have been extremely satisfactory for Reaga, as it allowed him to demonstrate both the viability of wheat production in Colombia and the capacity of the nation’s agronomists to solve pressing problems of agricultural development.

The parent varieties that were crossed to create Menkemen also received a great deal of attention in the final experimental thesis in 1952. Of all the Colombian agronomy students who completed a masters’ thesis that year, Rafael Paris Navarro asked one of the most interesting questions of the existing literature, all of it from foreign sources. Paris focused on photoperiodism, which refers to the amount of daylight and darkness a plant needs in order to flower. “Long-day” plants require anywhere from fourteen to eighteen hours of sunlight a day, while “short-day” plants can thrive with just twelve. By the time Paris began his research, wheat had been defined as a “long-day” plant,

¹²⁵ Ibid., 22.

despite evidence that certain varieties responded just as well in environments with shorter days.¹²⁶

Although the effect of amount of daylight on the flowering of plants was a phenomenon that had been observed prior to 1920, no formal research had been conducted on it. Between 1920 and the 1950s, however, a small boom occurred. Initially, researchers focused on simply documenting the effect of different day lengths on various plants.¹²⁷ Eventually, they came to realize that the effect of photoperiodism varied from one variety of the same plant to another.¹²⁸ Over time, research on photoperiodism shifted from documenting how different plants and varieties responded to day length, to attempting to understand the mechanism by which photoperiodism worked or exploring ways of manipulating available light to meet market demands for some plants.¹²⁹ In the process, several issues emerged that would

¹²⁶ Rafael Paris Navarro, "Fotoperiodismo y temperatura en variedades de trigo en la Sabana de Bogotá," unpublished masters' thesis, Universidad Nacional de Colombia, Medellín, 1952. Researchers later concluded that the key factor in photoperiodism was not the amount of light, but the amount of darkness, as the chemical processes that promote flowering occur at night. Thus, it is actually technically more correct to refer to "long-night" and "short-night" plants. However, at the time that Paris Navarro wrote his thesis, "day" was the common term and is the one I will use here.

¹²⁷ W.W. Garner & H.A. Allard, "Effect of the Relative Length of Day and Night and other Factors of the Environment on Growth and Reproduction in Plants," *Journal of Agricultural Research* no. 18 (1920): 553-606. One researcher indicated that photoperiodism set natural limits on where plants could be sown, and used wheat as an example. See, H.M. Wanser, "Photoperiodism of Wheat: A Determining Factor in Acclimatization," *Science* 56 (September 15, 1922): 313-315.

¹²⁸ In the late 1930s, W.W. Garner, the agricultural scientist who had originally signaled the importance of photoperiodism, complained that other researchers' inattention to varieties sometimes skewed results: "The recent work by Evans and Allard with timothy well illustrated the marked differences frequently existing in the critical photoperiods of otherwise closely related varieties and strains of economic species, a situation which has often been overlooked by investigators who have reported results obtained with many species without identifying the variety or strain worked with, making satisfactory interpretation very difficult." See W.W. Garner, "Recent Work on Photoperiodism," *Botanical Review* 3 (May 1937): 259-275, 261. See also, B.B. Elliott & A.C. Leopold, "A Relationship between Photoperiodism and Respiration," *Plant Physiology* 27 (October 1952): 787-793, 792; A.C. Leopold, "Photoperiodism in Plants," *The Quarterly Review of Biology* 26 (September 1951): 247-263; J.G. O'Mara, "A Photoperiodism Accompanying Autotetraploidy," *The American Naturalist* 76 (July-August 1942): 386-393.

¹²⁹ For research focused on the role of light in greenhouses, calibrated to manipulate when flowers would be available on the market, see, E. J. Starkey, "Photoperiodism and Chrysanthemum Production," *Science* 76 (December 23, 1932): 594-595. Another question centered on how effectively researchers could make determinations about

later be relevant to Paris' work on photoperiodism in wheat in Colombia. To begin with, research conducted on sesame in Burma revealed that even small changes in the amount of daylight mattered for some varieties. Thus, even at "low latitudes" of the globe, changes of just an hour or two could make a difference.¹³⁰ Moreover, what constituted a "long day" or "short day" was apparently an arbitrary decision of each individual researcher.¹³¹

More importantly for Paris was a question that no one had yet asked: if different varieties of the same plant had different light requirements, what would happen if a short-day variety was crossed with a long-day one to produce a new hybrid? What would its light requirements be? And would it be possible to crossbreed specifically to create a hybrid with light requirements appropriate for the environment in which it was to be cultivated? More specifically, could Colombian agronomists develop a hybrid wheat variety adapted to that country's constant amount of daylight?

The "Colombian-ness" of this question is readily apparent. Such questions were not asked among researchers in the United States, first because they already operated under the assumption that wheat was a "long-day" plant, and as such, clearly suited to

photoperiodism, being that the rigid distinction between vegetative and reproductive stages were actually quite arbitrary and that scientists did not fully understand the difference between the two. See, Karl C. Hamner, "Correlative Effects of Environmental Factors on Photoperiodism," *Botanical Gazette* 99 (March 1938): 615-629. Some of the other issues that occupied researchers' attention at that time included: photoperiodic after-effect (effect of short exposure to light during the night hours), relationship between photoperiod and vernalization (the changes a plant experiences over the course of a year in response to temperature changes), artificial illumination, the effect of different regions of the visible light spectrum, and vegetative vs. reproductive development.

¹³⁰ As Garner noted, "Results with *Sesamum* reported by Rhind in Burma, with an annual range in day length from somewhat less than 11 to 13½ hours, emphasize the fact that photoperiodism is an important factor in plant growth even at low latitudes. Distinct 'early' and 'late' forms of *Sesamum* are recognized in Burma, the latter making, when planted early, a rank growth with little flowering and no fruiting, but producing normally if planted late. The late forms proved to be typical short-day plants, growing and reproducing abundantly when exposed to a photoperiod of 12 hours or less." See, Garner, "Recent Work," 263.

¹³¹ Hamner, "Correlative Effects," 615.

the environmental conditions found there. Moreover, that country's ability to grow wheat was not in question, and neither was the possibility of it achieving self-sufficiency in that grain. In Colombia, on the other hand, while the issue of how photoperiodism actually worked and questions such as the role of hormones or respiration, while interesting, were certainly not pressing. How to achieve self-sufficiency was a much more interesting question in Colombia, one that photoperiodism could potentially answer.

Oddly enough, Paris began his thesis by echoing some of his fellow students and discussing wheat's origins. The contradiction between his discussion of this and the other students' discussion is exquisite, however. The other students who vigorously defended Colombia's ability to grow wheat by referring to the wide array of climates and conditions where different varieties had first emerged tended to write theses focused on social and economic issues of agricultural production, and consequently, could not "scientifically" counter the idea that wheat was an unsuitable crop for Colombia. Paris, on the other hand, repeated the claim coming from "northern latitudes" that the reason Colombia had not yet achieved sufficient levels of wheat production was that, despite the heroic efforts of the Spanish to introduce its production to Colombia after the conquest, the country was tropical, and not one of "the world's true wheat producers."¹³² And yet, his thesis was the one with the strongest scientific refutation of that notion.

¹³² Paris Navarro, "Fotoperiodismo y temperatura," 1.

The effect of Colombia's "tropical" environment on wheat was to a significant degree, the focus of his study. As he indicated, due to the climatic conditions, varieties that matured in only 100 days in Canada took far longer in Colombia. In order to find varieties that might be better suited to Colombia's climate and relatively constant amount of daylight, he devised, as he called it, a simple research design. Fifty different wheat varieties from Colombia and around the world were planted every month on the first of the month for a year beginning in November 1950. Careful observation followed and the date that they first flowered was noted. That information was later combined with the meteorological information that had been regularly collected at the Caldas experiment station for several decades as well as the calculations he had devised for determining the length of day on the Sabana de Bogotá for any day of the year. The results were promising.

Most varieties were exceptionally late in blooming, indicating that they preferred long-days and were not suitable to Colombia's shorter hours of daylight. A few bloomed relatively early, however, and others showed no predictable response to the amount of daylight. Among the short-day varieties that bloomed early were Mentana and Baart, two varieties commonly cultivated in the Pacific Northwest of the United States, under climatic conditions (in terms of temperature and rainfall) similar to those found on the Sabana de Bogotá. Kentana and Kenya 10866, both with origins in that African nation at a similar latitude as Colombia, were among the indeterminate varieties. These varieties (with the exception of Baart) would shortly be crossbred to

create the new hybrid Menkemen, which Reaga Santos would later declare the variety that best met the requirements of Colombia's farmers, millers, and bakers.

Conclusion

Chaves' 1952 thesis on soil fertility in Mexico began with a reference to Thomas Malthus, the 18th century English scholar, most well-known for his theory about population growth. According to Malthus, the earth's ability to provide sustenance for a growing population was not infinite, and eventually, overpopulation would be checked by famine or disease. Although the political context in which Malthus wrote is often obscured, the core of his idea has traveled far. Thus, Chaves, a Colombian agronomist conducting research in Mexico 150 years later could begin his thesis by asserting that: "Malthus' ideas and theories once again stirs public opinion in civilized countries; increased human population confronting [agricultural] production that does not achieve a similar rate of increase, is a topic gaining great importance among researchers and statisticians."¹³³

Indeed, just a year later, a Harvard-based economist, Wilfred Malenbaum, introduced his book on the world wheat economy by also referring to Malthus. Like Chaves, he pointed to growing concern about food shortages and population growth. He did not believe that a "Malthusian specter loom[ed] ahead," however. Agricultural production in the pre-war years had actually increased so much that the United States faced the problem of a wheat surplus. Yet, starvation and malnutrition had still been

¹³³ Chaves, "Contribución al estudio," 1.

significant problems. For Malenbaum, this reflected a distribution problem. And it was a problem likely to increase unless measures were taken to increase purchasing power around the world. As he indicated, post-war wheat production had recovered and begun to exceed pre-war levels. The hunger problem was thus not the one that Malthus had envisioned, but rather one that could only be solved by improving the “ability of importing countries to buy wheat in the international market.” This meant increased foreign aid. The consequences of decreasing such aid were dire: “...a rapid reemergence of wheat surpluses, along with an increase in the number of people who go hungry because their currencies will not buy wheat.”¹³⁴

While both Chaves and Malenbaum both refuted Malthus’ dire predictions based on the promise of increased agricultural production, their visions were radically different: increased domestic production in developing nations, on one hand, increased U.S. exports on the other. As this chapter has attempted to show, those visions competed with each other in interesting ways in the early 1950s in Colombia. Struggling to gain the credibility among government officials that would allow their opinions to be taken into consideration as the nation embarked on national development programs, the nation’s agronomists worked hard to construct of an image of themselves as strong professional scientists who had a crucial role to play in helping the nation achieve some of its cherished goals of national self-sufficiency in important staple crops, particularly wheat, which consumed a sizeable portion of the nation’s foreign reserves. This, in turn, retarded industrial development, as it tied up resources that could have been used to

¹³⁴ Wilfred Malenbaum, *The World Wheat Economy, 1885-1939* (Cambridge: Harvard University Press, 1953), vii-viii.

import machinery or raw materials needed by various industrial interests. Improving the purchasing power of a country such as Colombia, in the meantime, eventually became the preferred post-war strategy of the United States, in its efforts to dominate the global market and ensure a steady customer base for its surplus wheat production. One strategy to achieve this was the discursive construction of the globe into “wheat growing/exporting” countries and “non-wheat growing/importing” countries. Thus, efforts to achieve self-sufficiency on the part of a country such as Colombia were described by the USDA as “vain,” and a waste of resources. Colombian agronomists bristled at such suggestions. A series of masters’ theses on wheat in the early 1950s (all completed in 1952) labored to both build their credibility as solid scientists and resist the imperialistic aims of the United States by demonstrating that wheat could be successfully grown in a “tropical” country. That a popular science magazine in 1953 could compare the light requirements of “short-day” plants such as sugar cane with “long-day” plants such as wheat, as if such distinctions were rigid and natural, despite the scientific work that had been done in both Colombia and the United States demonstrating otherwise, indicated how far Colombian agronomists still had to go to convince their national leaders that resisting U.S. wheat imports was not only economically beneficial but technically feasible.¹³⁵

¹³⁵ Horace Loftin, “Time for a Change,” *The Science News-Letter* 64 (August 15, 1953): 106-107, 107.

CHAPTER 3

At the Mercy of the Millers: Gentlemen-Bakers and the Construction of an Industrial Identity

Fabio Jaramillo Gómez returned to Colombia from a twenty-five day tour of the U.S. wheat industry in the spring of 1958 more convinced than ever that without imports of American flour, the Colombian baking industry would collapse. Jaramillo Gómez was the Manager of the Federación Nacional de Fabricantes de Pan (ADEPAN), an association dedicated to protecting and promoting the interests of the bread-making industry in Colombia. Following his visit, ADEPAN asked the government to reduce its tight restrictions on flour imports. Commenting later on that request, Jaramillo Gómez indicated that a favorable response was likely, considering that over 100,000 people worked in the bread-baking industry and its collapse could have disastrous consequences.¹

Echoing these sentiments, that July the editors of *El Panadero Colombiano* ("The Colombian Baker"), ADEPAN's monthly trade magazine, added that chaos in an industry employing 110,000 people would not only wreak havoc with the nation's economy, but also invite "social disorder," a frightening prospect at a time when Colombia was recovering from a period of violence and political conflict.² Concern for the social implications of disruption in the baking industry apparently extended beyond the leadership of ADEPAN. During a meeting about flour shortages held that same month between Jaramillo Gómez, the Minister of Agriculture, and two other important

¹ "Regresó de los Estados Unidos El Gerente de Adepán," *El Panadero Colombiano* (hereafter PC) No. 9 (July 1958): 14.

² "La crisis harinera," PC No. 9 (July 1958): 5.

members of ADEPAN – Pierre Albrecht Jr. (President) and Hernando Vélez Angel (board member) – the Minister, Augusto Espinosa Valderrama, expressed as much interest in the welfare of the baking industry's 110,000 employees as he did in the problems of low national production, speculation, and inadequate distribution systems.³

Throughout 1958 and into 1959, ADEPAN used several strategies to portray bread-making in Colombia as a modern, mechanized industry, as opposed to a craft engaged in by artisan-bakers. Continually referring to the industry's 110,000 employees was one of them.⁴ Artisans worked alone, after all, or with their family members or an apprentice. Rarely did they have "employees." Another strategy was to fill the pages of their trade magazine with articles discussing labor relations, business administration, or technical issues in the workplace. Salary negotiations, hygienic practices, the advantages of some types of baking equipment, preventing accidents in the workplace, improving management skills – while articles on such topics could be expected in a trade magazine for any industry, they also served to reinforce the notion that the baking business in Colombia was large and modern.⁵ To be sure, hints that some bakeries did not meet the hygienic and professional standards associated with the modern baking industry occasionally appeared, such as in an article about maintaining regular

³ "Entrevista MinAgricultura-Adepán," *PC* No. 9 (July 1958): 19.

⁴ In addition to the previous examples, see: "Una lucha sin tregua," *PC* No. 11 (September 1958): 10-11; "El gremialismo, factor de orden," *PC* No. 13-14 (November-December 1958): 34; "Las nuevas importaciones de trigo y harina," *PC* No. 15 (January 1959): 13-14; "El problema sanitario en la industria alimentaria," *PC* No. 15 (January 1959): 22; "Relaciones obreros-patronales," *PC* No. 16 (February 1959): 2.

⁵ "Algo sobre pastelería," *PC* No. 1 (November 1957): 31; "Todo industrial panadero debe asignarse un sueldo," *PC* No. 2 (December 1957): 19; "La prevención de accidentes en la panificadora," *PC* No. 5 (March 1958): 7-8; "Normas higiénicas que se han de observar en los trabajos de panadería," *PC* No. 5 (March 1958): 9; "La prevención de accidentes de trabajo," *PC* No. 12 (October 1958): 2; "Relaciones obreros-patronales," *PC* No. 16 (February 1959): 2.

customers. Bakers who gave their wives at the sales counter a short break by coming out of the kitchen to serve customers with a cigarette in their mouths and nicotine under their fingernails were unlikely to see many repeat patrons, the article argued. Striking a positive note, however, it also stressed that such experiences were becoming more rare as bakeries strove to meet the sanitary conditions their modern industry demanded.⁶

Ultimately, subtle hints that the baking industry was not fully modern were far outnumbered by more direct indications that it was. The industrial nature of bread-making was unmistakable in another article discussing salary issues, which began by noting that:

“It is evident that the relations between capital and labor should be maintained at a high level of solidarity and cooperation. The industrialists of the baking industry constantly check requirements for appropriate salaries and wages for their businesses.”⁷

The image conveyed is that of powerful businessmen in charge of an important slice of the nation’s industrial sector. Craftsmen or artisans were clearly the bakers of the past.

Nonetheless, subtle indications that a truly modern baking industry was still a goal rather than a reality eventually gave way to outright declarations. In the February 1959 issue of *El Panadero*, the editors asked: “to what degree we can consider Colombian bread-baking activities an authentic industry?” Before answering, the editors discussed the crucial distinction between large and small industries, based on factors such as capital investment, number of employees, degree of mechanization, use of raw

⁶ “Para hacer una clientela y conservarla, *PC* No. 1 (November 1957): 4.

⁷ “Los salarios en la panadería,” *PC* No. 9 (July 1958): 2.

materials, consumer demand, and the possibilities for growth and increased consumption. By such measures, Colombian textile production was an example of a large (and “powerful”) industry, and ceramics production an example of a small one, characterized by products handmade in people’s homes. With such measures in mind, the editors concluded that the Colombian baking industry was not a small one, despite the fact that “...a considerable segment of it [was] still handmade, home-based production, with low mechanization and lacking significant capital investments.” These major issues aside, the baking business rated high enough on all the other measures that the authors felt confident to assert that it was not a small industry, and, thus, by implication, a large one, with some modernization still to be achieved.⁸

Within a few years, the magic number ADEPAN used to describe the baking industry would change from 100,000 (employees) to 80% (artisanal bakers). This occurred after twenty of Bogotá’s largest industrial producers defected from ADEPAN and formed their own organization, the Federación de Industriales de Panificación (FIP, Federation of Industrial Bread-Makers). The split in the two organizations reveal strong class-based cleavages in Colombia. After the establishment of the new organization, ADEPAN would carve out a space for itself in the public sphere alongside the nation’s workers, poor urban residents and popular class in general. But, these different forms of public representation also reflected shifting socio-political climate. After 1960, a variety of strikes and public protests rocked the country, as the nation’s popular classes dealt with the disillusionment of the lack of reforms that promised by the National Front

⁸ “¿Tenemos una industria panificadora?” *PC* No. 16 (February 1959): 13.

when it came into power in 1958. Between 1958 and 1959, during the first two years of the National Front, the nation's industrial associations also expected to be given pride of place in public policy formation. The year before, a coalition of business associations, individual industrialists, and other private interest groups had banded together to push for the ouster of General Rojas Pinilla, Colombia's only, short-lived military dictator. Their success emboldened them to demand more changes beneficial to the nation's industrialists and business owners.

ADEPAN in those years worked hard to project an image of itself as an association of industrial business owners, equal to the other great industrial associations, and the businesses they represented. They cultivated this image both in the ways that they spoke of their own industry, but also in how they defined themselves in relation to the nation's millers, who they portrayed as uncaring and uninterested in the general welfare of the nation. Part of this strategy was to emphasize the ways that the millers were not "gentlemen" – harking back to an earlier notion of the *civilistas* – cultured men who worked together to ensure a stable political climate amenable to economic growth and stability, despite whatever political disagreements they may have had. They criticized the millers in a number of ways – their lack of attendance at meetings hammering out deals among the various business associations and the national government, their insistence on using new milling technologies that were economically harmful to the country as a whole, and most of all, the various ways that they engaged in speculation, harming bakers and consumers alike.

This chapter will examine the efforts by ADEPAN in its early years to publicly define itself as an association of “gentlemen bakers.” The first section will examine the political and economic climate in which they operated, showing the devastating effects of the coffee bust and the impact of U.S. wheat imports through the P.L. 480 program. The second section examines the founding and early history of ADEPAN. Finally, the third section looks in greater detail at the association’s attempts to construct its public image as “civilized and gentlemanly businessmen” in contrast to far more selfish and callous millers.

Coffee Bust, Dictatorship, Import Restriction, and PL 480

In May 1956, whenever Daniel Pino Vallejo walked past the storefront of the local milk vendor in Palmira, Colombia, he tipped his hat in greeting to the bottles of milk inside and walked on. As Pino explained, the price of milk had become so “scandalously high,” consumers could no longer afford to actually buy it, and had to satisfy themselves with simply saying hello to it as they passed. The same was true for housing costs and the price of medicine. Aside from inhumane landlords and doctors who had forgotten their Hippocratic oaths, Pino blamed the high prices on merchants and businessmen engaged in the crime of speculation. Pino suggested in a letter to the president of Colombia, General Gustavo Rojas Pinilla, that such people be punished with jail time.⁹

⁹ Archivo General de la Nación (hereafter AGN), Colección Rojas Pinilla (hereafter RP), Despacho Señor Presidente, Arriendos, Box 104, Folder 1, *folios* (hereafter *f*) 1-2.

The previous month, José Juvenal González Corredor complained of similar difficulties providing food and clothing for his wife, Georgina, and their eight children in Tunja. The continuously rising prices for bread, molasses, meat, butter, corn, salt, and potatoes had sometimes led him and his family to “...beg God with tears in our eyes...to save us from dying from this frightening and horrible hunger.” Like Pino, González offered the president suggestions for solving the problem of scarcity and rising costs. His suggestions were more concrete (and less vengeful) than Pino’s however, and one of the first on his list of almost fourteen items was a reduction in both the sales tax and import tariffs.¹⁰

Prices seemed to be getting so high and out-of-control that the national government froze the amount of rent landlords could charge, and the mayor of Bogotá implemented measures to keep the costs of some food items at reasonable levels. But was the rise in housing, food and medicine costs real or only perceived? In a radio and television address to the nation at the end of May, the Minister of Finance raised such a question when he suggested that while the cost of living had indeed risen slightly, the price panic that seemed to have gripped the nation was out of proportion to the country’s economic indicators.¹¹

The Minister, Dr. Carlos Villaveces, acknowledged that the nation had suffered a serious setback as coffee prices on the global market had fallen dramatically. Colombia’s dependence on coffee as the engine of its economy throughout the first half

¹⁰ AGN, RP, Desp. Sr. Presidente, Correspondencia/Gobernaciones, B 104, F 16, f 10-14.

¹¹ AGN, RP, Dirección de Información y Prensa, Correspondencia/Ministerio de Relaciones Exteriores, B 8, F 41, f 46-59.

of the twentieth century has been amply studied by historians and economists and was certainly of great concern to contemporary actors. Although exports of bananas and oil had also grown in importance in the first half of the twentieth century, it was coffee that provided Colombia with the bulk of its foreign reserves and partially helped to fuel industrialization in the early 20th century. Coffee sales continued through the depression and World War II, but the general slow-down in international trade during those years gave Colombia a significant stockpile of foreign reserves which it began to use more liberally, once trade resumed after World War II. Global coffee prices rose at the same time, leading to a period in Colombian history known as the “coffee bonanza” (1948-1955), when the national economy rapidly grew at unprecedented rates. Light manufacturing of textiles and consumer goods strengthened its position in the national economy as the Conservative regimes in place between 1946 and 1953 implemented protectionist policies. Primary materials needed for their production enjoyed low import tariffs, but other food items, textiles, and finished consumer goods faced import restrictions, imposed through high tariffs. Heavy manufacturing also began. Import policies helped to spur their growth as well, in this case, charging low tariffs on the machinery essential for those industries to operate.¹²

As Villaveces indicated, while global coffee prices were high, this was a successful policy. But, the dramatic fall in prices after 1955 revealed its flaws. Without a fair price or “satisfactory volume” of exports, the country had few foreign reserves and could not achieve its development objectives. As primary materials became harder to

¹² Bulmer-Thomas, *Economic History of Latin America*; Kalmanovitz and López Ancisar, *La agricultura colombiana*; Palacios, *Café en Colombia*; Saénz Rovner, *Colombia años 50*; Safford and Palacios, *Fragmented Land*.

come by, prices for food and consumer items began to rise. Outlining the flaws of the coffee economy, Villaveces sadly acknowledged that Colombia did not have the power to either increase consumer demand in foreign countries or set the price on the global market. While Colombia, Brazil and other coffee-producing countries were working on an agreement to control the supply (and thereby ensure a steadier income for the nations in question), Villaveces announced that the government was doing its best to make the Colombian economy less dependent on coffee. The foundation of the new strategy was further protection of Colombian industry.

Industry, after all, had benefited enormously from the protectionist policies already in place, Villaveces argued. Citing statistics from the IMF, he indicated that the economy had been growing at an average annual rate of 6% – the highest rate in Latin America and “possibly the entire Third World.”¹³ As Colombia had only been importing 4% of its finished consumer goods, this was evidence that the protectionist policies were working, according to Villaveces. Countering detractors who had claimed that the government’s import policies would hurt the economy, he offered the examples of Cervecería Bavaria, Compañía Colombiana de Tabaco, Coltejer, Fabricato, and Tejicondor – Colombian beer, tobacco, and textile companies that had earned record profits since the late 1940s. These were all light industries, however, and Villaveces indicated that to truly reduce its dependence on coffee, Colombia needed to step up heavy manufacturing, which meant more importation of machinery and further restrictions on imports of food and consumer goods.

¹³ AGN, RP, Dirección de Información y Prensa, Correspondencia/Ministerio de Relaciones Exteriores, B 8, F 41, f 46-59: 50.

Lest anyone question the wisdom of this policy in terms of the rising cost-of-living, Villaveces then asserted that, while the economy had grown 6%, the inflation rate had increased at much more moderate rates – 2.8% for the middle class and 2.1% for the poorest sectors of society. Despite these “reasonable” rates however, over the previous year, a “mentality of scarcity” had taken hold of the country and led to higher prices. Villaveces did not mention speculation or measures to curb the practice, indicating instead that the construction of more food storage facilities and the implementation of better distribution systems would help to prevent the “false scarcity” which led to panic and rising prices.

But, how would more storage facilities and better distribution solve the problem (real or perceived) of scarcity, if basic grains and milk, along with other food items, were not being produced in sufficient quantities within the country, and yet were included on the list of imported products that were restricted through high tariffs? Where was the food in the storage facilities to come from? That was the second part of the government’s strategy – to increase domestic production of agricultural goods by offering more credit to farmers. While small farmers provided supplies of a few basic food crops such as corn and beans, the bulk of agricultural output in Colombia had long been focused on export crops – coffee and bananas being the most obvious (and significant) examples. As outlined in the previous chapter, beginning in the 1930s and accelerating in the late 1940s, Colombia implemented agricultural programs designed to increase production of staple grains and foods, as well as those crops that were primary materials for Colombia’s light manufacturers: cotton for the textile industry, barley for

the Bavaria beer consortium, and tobacco for the cigarette companies. The policy announced by the Minister was a continuation of those programs.

The student of twentieth century Latin American history will already recognize the outlines of Import Substitution Industrialization (ISI) in these tariff policies. Less readily recognized is the policy of Import Substitution Agriculture (ISA), which accompanied it. Partially a response to the precariousness of international trade during the Depression and World War II, and further promoted by the protectionist economic policies espoused by the United Nation's Economic Commission on Latin America (ECLA) in the 1950s, ISI was an economic development policy implemented throughout Latin America in the mid-twentieth century. As the name implies, the objective was to reduce reliance on imported goods and strengthen national industries. ISA is less well-known than ISI, partly because the economic planners who pinned their hopes on this development policy tended to believe that agriculture was a "drag" on an economy – small farmers and agricultural workers rarely had the need to or the disposable income or access to the commercial centers that would allow them to become buyers of the consumer goods produced by the nation's manufacturers. Thus, in many contexts where ISI was implemented, agriculture was ignored or de-emphasized. In Colombia, on the other hand, planners promoted a comprehensive import substitution package that focused on both industry and agriculture, encouraging the production of some of industry's raw materials on Colombia's own soil.¹⁴

¹⁴ A similar policy was implemented in other parts of the world at the same time as well. One of the most well-known cases is that of India, which, in its second five-year plan (1956-1961), emphasized rapid industrialization and would have probably continued with that policy if it weren't for the threat of drought and famine which led India's

ISI policies in Colombia were accompanied by major shifts in the balance of power in the nation as a whole. One of those shifts centers on the relative power of agriculturalists vs. industrialists. From the late nineteenth century until the 1940s, agricultural interests, represented by either the Sociedad de Agricultores de Colombia (SAC) or the Federation of Coffee Growers (FEDECAFE), were powerful actors, with significant resources, strong connections, and considerable influence, allowing them to shape government policy to their benefit. Beginning in the 1940s, however, SAC and FEDECAFE faced challenges to their power on the national stage, which came from the emergence, growth and consolidation of industrial interests, represented after 1944 by the Asociación Nacional de Industriales (ANDI). (Sometimes, of course, particular members of ANDI also had agricultural holdings (or vice versa), so individual interests could be murky. But collectively speaking, one set of interests began to gain traction at the expense of the other).¹⁵

ANDI's growing power is evident in the Finance Minister's address to the nation. Historians have debated whether Rojas Pinilla can be considered a populist.¹⁶ Coming to power through a bloodless military coup in 1953, he is the closest thing to a populist leader (actually in power on the national stage) that Colombia has ever had. Allied with

economic planners to give equal importance to agricultural development. See, for example, Gupta, *Postcolonial Developments*; Matthew J. Kust, "El desarrollo económico y los excedentes agrícolas," (translated from *Foreign Affairs*, October 1956) *Revista del Banco de la República* 29 (November 20, 1956): 1259-1265. For the Colombian case, see: Kalmanovitz and López Enciso, *La agricultura colombiana*, 169-184.

¹⁵ Bejarano, *Economía y poder*; Kalmanovitz and López Enciso, *La agricultura colombiana*, 75-83; Sáenz Rovner, *Colombia años 50*; Eduardo Sáenz Rovner, *La ofensiva empresarial: Industriales, políticos y violencia en los años 40s en Colombia* (Bogotá: Centro de Estudios Sociales, Universidad Nacional de Colombia, 2007); Safford & Palacios, *Fragmented Land*.

¹⁶ On Rojas Pinilla: César Augusto Ayala Diago, *Resistencia y oposición al establecimiento del Frente Nacional: Los orígenes de la Alianza Nacional Popular (ANAPO) Colombia 1953-1964* (Bogotá: Universidad Nacional de Colombia, 1996); Silvia Galvis and Alberto Donadio, *El Jefe Supremo: Rojas Pinilla en La Violencia y en el poder* (Medellín: Hombre Nuevo Editores, 2002); Sáenz Rovner, *Colombia, años 50*.

the Conservative Party, he painted himself as the champion of the nation's urban working class and *campesinos* – poor farmers, with or without land.¹⁷ In his first two years in power, he implemented several policies that favored popular sectors of society, particularly, tax reform and liberal import policies. The tax reform increased government coffers, enabling it to provide needed social services. The import policy ensured that a wide variety of food items and consumer goods would be available at affordable prices. Neither of these policies were well-received by the nation's industrialists; the tax policy reduced their bottom lines and the liberal import policy increased competition. But, at the time, the coffee bonanza was still in full swing, and industrialists were earning record profits. Under such circumstances, they protested the president's policies, but never forcefully enough to ensure their repeal. Thus, in the early years of the Rojas Pinilla regime, his populist policies remained intact, despite some opposition from ANDI.¹⁸

The sharp decline in foreign reserves caused by the coffee bust two years later, however, compelled Rojas Pinilla to move from his populist stance and implement a more restrictive import policy. Initially, certain food items and consumer goods were given the same preferential status as the raw materials and machinery required to continue the nation's drive to industrialize. But as the economic situation worsened in 1956, Rojas Pinilla was forced to move farther still from his populist position on tariffs.

¹⁷ In a May 1956 speech in Soatá (Boyacá), he indicated that the greatest title he hoped to earn in his life was "President of the Campesinos." See AGN, RP, Desp. Sr. Pres., Discursos, B 104, F 11, f 4-9. A wide variety of public and private programs designed to help small-scale and subsistence farmers began during his tenure in office (references for STACA, ACPO, stuff from Colombia Campesina, etc. here). Measures to assist urban workers were also put in place, and assistance for the poor was provided through SENDAS, an organization run by Rojas Pinilla's daughter.

¹⁸ Sáenz Rovner, *Colombia, años 50*.

In the plan announced by Minister Villaveces at the end of May that year, restrictive tariffs on imports of food items and finished consumer goods were strengthened, while raw materials and machinery continued to enjoy favorable tariff rates. With this plan, Rojas Pinilla clearly put long-term economic planning ahead of the short-term needs of the population. In other words, the interests of industrialists were favored over those of working class consumers – those most affected by increases in the cost of living.

Villaveces began his speech with a populist flourish: "...it is not possible to think of a well-ordered society in which a few people have abundant use of the nation's goods while others lack the most elemental [ones]." But the solution he proposed in his subsequent statement demonstrates the administration's emphasis on industrial development: "...in this the thesis of modern economists coincides with Christian doctrine, when they identify the need to maintain and increase consumption as the only method of achieving effective development and greater productivity."¹⁹ In his study of industry and politics in the 1950s, Sáenz Rovner ably demonstrates how the populism of Rojas Pinilla or the anti-Americanism of Laureano Gómez (1950-1953) were tempered by the economic challenges that they faced as well as the power of interest groups to compel their hand.²⁰

While ANDI gladly welcomed strengthened restrictions on imports of consumer goods, other interest groups were not as pleased.²¹ The National Merchant's Association

¹⁹ AGN, RP, Dirección de Información y Prensa, Correspondencia/Ministerio de Relaciones Exteriores, B 8, F 41, f 46-59: 46.

²⁰ Sáenz Rovner, *Colombia, años 50*.

²¹ They were, of course, not very pleased about the tight controls on imports of raw materials also put into place at the same time, but at least they stood to gain somewhat from the new restrictions, unlike other groups.

(FENALCO), representing store owners and shop-keepers, was deeply opposed to the more restrictive import policies, which limited the goods that they could sell to the often more expensive domestically-produced ones.²² Similarly, FEDECAFE had been frustrated since 1955, when Rojas Pinilla permitted other export agricultural producers, such as banana growers, to convert the dollars they earned through international sales to pesos on the free market, but required coffee exporters to convert their dollars to pesos at official rates, which were far below the unregulated ones.²³ For FEDECAFE, this essentially meant that they were being forced to underwrite the government's coffers.

Another group opposed to the government's new policy was ADEPAN. It was the less stringent restrictions from the previous year that had partially inspired some of Colombia's bakers to organize in the first place; they were in the process of formally establishing the association and electing officers when Minister Villaveces made the announcement that imports would be subject to even stronger controls.²⁴ Unlike merchants, Colombia's bakers were in the unique position of being simultaneously retail vendors and producers of a consumer food item – merchants and industrialists at the same time. As will be discussed in greater detail shortly, this generated an unusual

²² On the sometimes sour relations between ANDI and FENALCO, see Bejarano *Economía y poder*, 265-283; Safford & Palacios, *Fragmented Land*, 320-321. Sáenz Rovner also briefly discusses the opposing positions of ANDI and FENALCO to the enhanced import restrictions imposed in 1956 in response to the country's growing economic crisis. See Sáenz Rovner, *Colombia, años 50*, 201.

²³ Sáenz Rovner, *Colombia, años 50*, 177.

²⁴ "Adepan cumple su primer decenio," *PC* No. 31 (July 1966): 19. While ANDI, SAC, and FEDECAFE were arguably the most important representatives of the country's industrial and agricultural interests, the 1950s saw the establishment of a variety of more specialized "lobby associations," many with conflicting agendas. Some did not map neatly onto the "traditional" lines of agriculture vs. industry. Others involved different groups of large and small industrialists. To a significant degree, these conflicts have been overlooked in Colombian historiography, while the relations between SAC, FEDECAFE, and ANDI (and to a lesser degree FENALCO) with each other and the national government have received the majority of scholarly attention.

conflict with one of their main suppliers – the nations’ millers, represented by the National Association of Millers (ASEMOL). Moreover, American wheat vendors in Colombia and the U.S. surplus crops program, commonly known as PL 480, further complicated the bakers’ unique situation and their response to the tightened import restrictions.

Between 1931 and 1955, the SAC, the Faculties of Agronomy at the National University in Medellín and Cali, and the national government implemented a variety of programs and campaigns to increase production and promote the use of domestically grown wheat and wheat flour, along with rice, cotton, cacao, and barley.²⁵

Unfortunately, the substitution of imported for domestic wheat for the bread and pasta-making industries faced a complex set of obstacles. Low levels of production in Colombia often made national wheat difficult to find; the low protein content of many Colombian varieties often produced poor quality bread, leading bakers to prefer imported flours; large-scale production in Canada and the United States, along with excessive transportation costs within Colombia, often meant that imported flour was cheaper than domestic.²⁶ Up until 1954, Colombia had purchased flour and grain from those countries through normal commercial channels, but that year, the United States passed Public Law 480. Billed as a food assistance program for “less developed”

²⁵ Bejarano, “Las ciencias agropecuarias”; Kalmanovitz and López, *Agricultura colombiana*; Hugo E. Vélez M., “Difusión de la producción mercantil y de la tecnificación en la agricultura colombiana,” in *La agricultura colombiana en el siglo XX*, ed. Mario Arrubla (Bogotá: Editorial Andes/Instituto Colombiano de Cultura, 1976). Wheat growers had already been complaining about the influx of American wheat in the late 1920s. See Rafael Flórez, “El problema del trigo,” *RNA* 14 (March-April 1929): 76-79.

²⁶ In almost all the primary sources related to this issue, the Colombian authors or speakers referred to wheat produced in their country as “national wheat” rather than “domestic wheat.” Unless otherwise noted, I will use both terms interchangeably.

countries, its main purpose was to dispose of surplus crops by both directly selling them to other countries through the program and simultaneously helping to increase demand and create markets for them that could be filled through normal commercial channels. At first glance, the program seemed beneficial for developing countries, as they could purchase the excess food items using their own currencies rather than their foreign reserves, a highly attractive stipulation in Latin America during an era of import substitution, and especially so for coffee-producing countries such as Brazil and Colombia, facing rapidly dwindling foreign reserves brought on by the coffee bust. Moreover, the foreign currencies used to purchase the excess food items were to be held by the U.S. government in a special account, and dispersed back to the countries in question to help pay for mutually agreed-upon development programs. As shall shortly be shown, however, onerous provisions regarding the commercial purchase of food items and the use of domestic currencies were often required by the U.S. government before it would enter into a PL 480 contract with a developing country.

The Rojas Pinilla administration signed Colombia's first PL 480 contract with the United States on June 24, 1955, in the early stages of the coffee bust, before it began to truly wreak havoc with the country's finances and national economy.²⁷ Colombia agreed to purchase the equivalent of US \$1,600,000 of wheat, the same amount of cotton, \$1,000,000 of cottonseed oil and \$700,000 of dairy products. Although these were relatively small amounts compared to other countries (the US \$22,000,000 of wheat purchased by Japan, or the \$34,932,000 purchased by Yugoslavia, for example, or even

²⁷ "Second Progress Report on Public Law 480," (Washington: House of Representatives, 84th Congress, 1st Session, Document No. 216, July 12, 1955), 6.

the \$6,491,000 or the \$6,420,000 purchased by Turkey and Peru, respectively), this represented approximately one-fourth of the wheat consumed in Colombia that year.²⁸

Six months later, on December 20, 1955, the Rojas Pinilla administration signed its second PL 480 contract and increased the amount of wheat it purchased to US \$3,400,000.²⁹ This contract was signed despite the fact that the Colombian economy was beginning to show signs of great stress. High-level functionaries from the World Bank had visited Colombia earlier that year and blamed the unstable economic situation as much on Rojas Pinilla's poor management of the national government, as they did on the coffee bust, claiming that he assigned military leaders to important ministerial posts, despite their lack of experience.³⁰ All the same, while things were bad at the end of 1955, industrialists were still making record profits and there was still hope that the coffee market would recover. By the following summer, however, the Colombian economy seemed on the verge of disaster.

Representatives from the World Bank returned to Colombia in April 1956 and recommended that Colombia devalue the peso to help stabilize the economy. Rojas Pinilla rejected this suggestion, and instead, as the Finance Minister announced the following month, imposed tighter import restrictions and began cutting the government's budget.³¹ This, of course, had no effect on the global coffee market, and

²⁸ Ibid. Production in Colombia in 1955 totaled 147,000 tons; 63,000 tons were imported. See Jorge A. Beltrán B., "Factores económicos y sociales relacionados con la sustitución de trigo en pan y pastas," *Revista del Instituto de Investigaciones Tecnológicas*, No. 97 (September-October 1975): 8-21.

²⁹ "Third Progress Report on Public Law 480," (Washington: House of Representatives, 84th Congress, 2nd Session, Document No. 294, January 12, 1956), 3.

³⁰ Sáenz Rovner, *Colombia, años 50*, 188.

³¹ Sáenz Rovner, *Colombia, años 50*.

by October, the situation was even worse. Colombia defaulted on IMF loans, bringing further pressure from the United States to devalue the peso.

The economic difficulties stalled negotiations for a new PL 480 contract. In July 1956, the Minister of Agriculture wrote to the American Embassy in Colombia requesting a renewal of the contract and asking for a substantial increase of 374,000 tons of wheat per year for the subsequent three years (compared to the approximately 250,000 tons imported the previous year). They also requested 40,000 tons of cotton and 27,000 tons of cooking oils. Several weeks passed before the U.S. responded. The terms of the counter-proposal were quite unsettling for Colombia. Instead of 374,000 tons of wheat, the U.S. proposed to sell Colombia only 150,000 tons of grain and 26,250 tons of “wheat products” (mainly flour). They also dramatically reduced the proposed amount of cotton from 40,000 to only 6,826 tons, similarly reduced the proposed amount of oils, and added the sale of 1,900 tons of lard. The total quantity amounted to US \$23,800,000. To some degree, there was nothing unusual in these proposed reductions. The PL 480 program was designed to supplement commercial sales of U.S. crops, not supplant them, and thus, the amounts available varied from year-to-year, depending on what “surplus crops” had not already been sold through regular commercial channels. The reduced amounts proposed by the United States were not made so innocently, however. The U.S. would agree to accept Colombian pesos for the sale of those amounts only if Colombia also agreed to purchase “many tons” of those products through regular commercial channels, using dollars. As the Minister of Agriculture lamented, in the end, Colombia would end up having to spend “more or less” US \$38,000,000, which was

particularly painful, considering that Colombia had not asked for, and did not need, several of the items for which they would have to spend their precious foreign reserves. To add insult to an already injurious counter-proposal, the U.S. Embassy added that “either [the Colombians] sign the contract in the form presented, or there was no contract.”³²

In spite of Rojas Pinilla’s observation that “negotiating [the terms of] these kinds of contracts [with the U.S.] was impossible and it was best to just sign it as proposed,” several more weeks passed before the contract was finally completed.³³ Apparently, it was in the nick of time. At the Cabinet meeting on October 10, after the announcement that the contract had been signed, the Minister of Agriculture made a subtle plea for the various entities in charge of import licenses and logistical details to act quickly, as “the importation of wheat to the country is urgent because there is going to be a shortage.”³⁴

Some in Colombia at the time would have argued that shortage was already a problem. ADEPAN certainly made such claims, decrying the speculators who hoarded what flour was available, increasing its price and heightening both the actual and perceived shortage. By October 1956, the young organization had already spent several months lobbying various government ministries to renew the PL 480 contract and reduce import restrictions on wheat and flour. Who were these bakers-turned-lobbyists? How clearly was their voice heard? What impact did they have, if any, on government policy and the national economy? And conversely, what impact did

³² AGN, RP, Secretaria General, Correspondencia/Ministerio de Agricultura, 1956, B 288, F 41, f 24.

³³ Ibid.

³⁴ AGN, RP, Consejo de Ministros, Correspondencia/ Actas de Sesiones, 1956, B 145, F 1, f 28.

economic conditions and the rapidly changing government policies and political situation have on the newly founded organization? The next section will address these questions through a more in-depth examination of the early history of ADEPAN.

Industrialists Large and Small and Political Transformation

Seventy-three bakers gathered together in April 1956 to found ADEPAN.³⁵

Although they came from all over the country, the largest majority by far, was from the department of Cundinamarca. Within two months they had been officially chartered and held their first general meeting. Fifty people attended and the meeting was presided over by seven bakers representing several different departments. As these men were not members of organizations such as ANDI or SAC, their names do not appear in many of the business directories that have been published, either at the time or in later decades, that could provide some biographical information about the people in charge of this organization. For some of them, therefore, such as Bernardo González and Alfredo Vélez Angel, it is not even clear what department they represented. Others, such as Antonio Montañez and Pierre Albrecht, Jr., who was named President of the Board at that first meeting, were from Cundinamarca, but other than that, not many more biographical details are known about them. Alfonso Arteaga, on the other hand, was a “dynamic industrialist” from Ibagué, Tolima, who was instrumental in getting

³⁵ “Adepan cumple su primer decenio,” *PC* No. 31 (July 1966): 19. Information about ADEPAN is scarce in Colombian historiography, and sometimes incorrect. Bejarano, in an overview of the many business associations established in the 1950s indicates that ADEPAN began in 1958. It is not clear from what source Bejarano drew this information, but it is clearly in conflict with ADEPAN’s own records. That such a respected scholar of Colombian economic history could make such a mistake, small though it may seem, speaks to the importance of expanding the historiography of Colombian economic, industrial and agricultural development beyond the three largest constituencies represented by ANDI, SAC, and FEDECAFE. See Bejarano, *Economía y poder*, 266.

the Tolima section of the organization off the ground two years later, and did so in order to make a contribution to the “rehabilitation” of that department, which had suffered greatly in the most recent phase of *la Violencia*.³⁶ Jorge Benedetti, from Cartagena, was one of the most enthusiastic members of ADEPAN in its early years, but eventually withdrew from the organization, and apparently from the baking industry entirely. By the end of the 1960s, he worked in the construction industry, managing housing development projects sponsored by the Bavaria Beer Consortium.³⁷ Of the seven men who presided at ADEPAN’s first meeting, sufficient details to provide a rich biographical portrait are available for only one of them – Francisco Montoya Isaza, from

³⁶ “La labor de Adepan en 1958,” *PC* Nos. 13-14 (November-December 1958): 18; “Adepan en Tolima,” *PC* No. 18 (April 1959): 13; “Noticias de nuestras seccionales,” *PC* No. 21 (January 1960): 23. *La Violencia* was a civil conflict in Colombia between 1946 and 1964 that claimed up to 200,000 lives. It was characterized by “waves of violence” that affected different departments at different times. Although these waves are not neatly discrete phenomenon, three main phases of *la Violencia* can be discerned. In the first phase, between 1946 and 1953, violence was concentrated in parts of Caldas and Antioquia. In the second, the severest violence occurred in Tolima, and although it had already taken hold there in 1951, it was at it worst between 1953 and 1958. The third phase began in the late 1950s or early 1960s and was centered in the Santanders and the *Llanos* on the Eastern Plains. The apparent cessation of violence in Tolima coincided with the beginning of the “National Front” – a power-sharing arrangement between the Liberal and Conservative parties (partisan conflict between adherents of these two parties was a primary fault line driving *la Violencia*), which drove Rojas Pinilla from power. Although other groups in Tolima and the rest of the country had already begun efforts to “pacify” violence-stricken regions through a combination of social programs and increased military presence, when Alberto Lleras Camargo, the first National Front president, took office, the concept of “rehabilitation” gained greater traction. “Rehabilitation” referred to both a specific program and a general concept. The specific program was one of direct assistance to rural residents of Tolima (and other regions afflicted by violence) consisting of “school construction, assistance for displaced people, road-building, credit, distribution of public lands, completion and improvement of jails, juvenile delinquency programs, housing construction, and other similar measures.” See, Alberto Lleras Camargo, “La rehabilitación” in *El primer gobierno del Frente Nacional, Tomo Primero (mayo de 1958-agosto de 1959)* (Bogotá: Imprenta Nacional, 1960), 120. “Rehabilitation” as a concept was obviously much broader and even more challenging to achieve. As Marco Palacios explained it: “The establishment of a peaceful, participative, and pluralist civic culture required the abandonment of confrontational styles of politics, the restoration of representative institutions, and the development of a modern public sector. Bringing the state and its citizens together would require the reconstruction of the judicial and police apparatuses, but also the honoring of commitments ranging from union rights and agrarian reform to the widening of access to education and urban housing.” (Palacios, *Between Legitimacy and Violence*, 170). Thus, “rehabilitation” came to be interpreted in a variety of different ways throughout Colombia and applied in contexts quite distinct from its original meaning as assistance for zones affected by violence. In September, 1958, for example, ADEPAN extolled the most recent congress of the National Association for Small Businesses (ACOPI) as of very “positive importance for the country, at this time of programs focusing on general economic rehabilitation.” See, “Noticias breves,” *PC* No. 11 (September 1958): 4. It was within this context that Alfonso Arteaga expressed his desire to develop the Tolima section of ADEPAN as his contribution to the rehabilitation of his department. For an examination of violence in Tolima see Henderson, *When Colombia Bled*.

³⁷ “Noticias breves,” *PC* No. 9 (July 1958): 4; “Informe de la Comisión Nombrada por la Asamblea General de Accionistas de Bavaria, S.A.” (Bogotá: Bavaria, 1969), 45, 46, and 49.

Antioquia. In 1956, Montoya was 45 years old, and had been involved in the baking industry most of his life. His family owned a bakery, apparently of such significant size that they could afford to send him to Belmont Abbey College in North Carolina, and later to the Bentley School of Accounting and Finance in Boston, Massachusetts, from which he graduated in 1933. He then returned to Colombia and until 1945, simultaneously managed his family's bakery and worked as a sales representative for American and European manufacturing firms. By the late 1950s, Montoya also owned a delicatessen and was a major shareholder in a canning factory in Medellín. He was also active in the Asociación Colombiana de Medianos y Pequeños Industriales (ACOPI), an organization dedicated to assisting small business owners. His involvement in these two organizations focused on small business development was strong; in 1959 he was named ACOPI's National Director and in 1961 he was elected President of ADEPAN's Board of Directors. Montoya later noted that he devoted about 80% of time to his responsibilities at ACOPI and ADEPAN.³⁸

The portrait that thus emerges is that of a hard-working, well-educated, middle-class, small-businessman, interested in laboring collectively to ensure conditions for the robust economic development of his city and country. This was largely the image that ADEPAN attempted to cultivate in its early years. ADEPAN itself portrayed the baking industry as a mixture of large and small businesses, and its membership as both home-based producers using "traditional" methods and industrialists operating partially

³⁸ "Nuestro mundo social," *PC* No. 20 (December 1959): 6; Great Plains Wheat, Inc., "A Tour of the U.S. Wheat Industry by the Colombian Wheat Team, August 13-September 5, 1961" (Garden City, KS: GPW/OFAR/USDA, 1961), 2.

mechanized bread factories. Of course, a partially mechanized factory could still be family-run, as the example of Isidro Pinzón in Bogotá attests. Pinzón was fairly new to the baking business in 1948 when he spent 3,000 pesos to purchase a few pieces of equipment, hired two employees, and struggled to sell bread to “a clientele unaccustomed... to consuming [his] product.” Thirteen years later, after tremendous effort and the constant assistance of his wife, Elvira Ordóñez de Pinzón, his small venture had grown to 39 employees, had thousands of customers, and had earned him “a fortune of over one million pesos.” Although his well-trained employees knew the bakery business well, from the simplest tasks “to the most complicated baking techniques,” Pinzón was proud to report that he had never requested assistance from foreign or national technical experts. He had trained them all himself, gaining his knowledge through experience; owner, production boss, supervisor, baker, manager, and salesman – Pinzón wore all of those hats and thus knew his business well. At the end of 1961, Pinzón was on the verge of further expansion. The latest baking equipment from Denmark was on order and expected to arrive in early 1962. The machinery had cost him over \$300,000 pesos and he was building a whole new bakery in another part of the city to accommodate it.³⁹

Imported machinery played an important role in the expansion of another Bogotá bakery, as did immigration. Isidoro and Tania Katz were part of a small, but steady stream of German-speaking immigrants to Colombia that began to arrive in the

³⁹ “Con sistemas europeos, ‘Pan Fino’ elabora el mejor y nutritivo pan en la capital,” *PC* No. 30 (December 1961): 6-8.

late nineteenth century and continued to do so after the end of World War II.⁴⁰

Immigrants from Switzerland, the Katz arrived to Colombia in 1951 and were the founders of “El Cometa” (The Comet), one of Bogotá’s busiest downtown bakeries and largest suppliers of bread products to several supermarket chains and airport cafeterias. Like *Pan Fino*, *El Cometa* began as a local bakery, with a small handful of employees, and eventually grew to quite significant size. Similarly, the Katz imported baking technology from Europe and, once it had arrived, learned to maintain it themselves, without importing further technology or expertise. In fact, the same equipment imported in the 1960s was still in use in downtown Bogotá in 2008 – equipment that was no longer manufactured in Europe and which had to be maintained by adapting locally made parts.⁴¹

Immigrants or not, a clear portrait emerges in *El Panadero Colombiano* – ADEPAN was a diverse group of small industrialists and artisan bakers. No matter the size of their bakeries, however, they all faced the same problems of flour shortage in 1956 and banded together to lobby the national government to renew the PL 480 contract with the United States.

⁴⁰ German immigrants in general have been highly represented in some of the most important industries or companies throughout twentieth century Colombian history. The Bavaria Beer Company, for example, was founded by German immigrants to Colombia in 1899. SCADTA, the precursor to Avianca, Colombia’s national airline, began as a Colombian-German consortium in 1919 and up until World War II, the majority of its shareholders, as well as many of the company’s pilots (veterans of World War I), were German-born. Paul Schauffelberger, a Swiss geologist, was the first director of the soil section at one of Colombia’s most important research entities – the Coffee Research Institute (CENICAFE), sponsored by the powerful Federation of Colombian Coffee Growers (FEDECAFE). See, David Bushnell, *Eduardo Santos and the Good Neighbor, 1938-1942* (Gainesville: University of Florida Press, 1967); Galvis and Donadio, *Colombia Nazi*; Rebecca Tally, “A Young and Dynamic Country: Soil Science and Conservation in Colombia, circa 1950.” Presentation at the New York State Latin American History Workshop, Cornell University, Ithaca, New York, October 15, 2006; Jorge Angel Vallejo, *100 años de Bavaria: Una historia de la industria cervecera de Colombia* (Medellín: Editorial Lealon, 1990). Intriguingly, a *Panadero* article discussing the explosive growth of bakeries and bread consumption in Japan indicated that bakeries were first established in Japan beginning in the 1920s following a wave of German immigration. See “El pan en el mundo,” *PC* No. 4 (February 1958): 30-31.

⁴¹ Tania Katz, interview with the author, Bogotá, July 14, 2008.

Shortage was not their only problem, however. Distribution of both national and imported flour caused a number of headaches, especially for the bakers in Medellín, who were neither in the wheat-producing regions of the central highlands, nor close to the port cities of Barranquilla, Buenaventura, or Cartagena. Transportation costs, a perennial problem in Colombia, partly contributed to the drastic shortages that seemed to occur frequently in Medellín. Diversion of flour to cracker and cookie producers was another problem. Food items such as flour, rice, and potatoes were regulated by the Instituto Nacional de Abastecimientos (INA), an agency set up in 1945 to ensure that basic staples were equitably distributed throughout the country and among different types of food producers or vendors.⁴² Imports of these items and national harvests all went through INA for redistribution. Bakers were allotted certain amounts, commensurate with the demand for bread, as were cookie and cracker makers. By the late 1950s, however, while the bread baking industry was still only partially mechanized, cookie and cracker companies, particularly Noel, based in Medellín, had become large industrial enterprises, and, as such, bought flour in larger quantities than bread bakers, making them attractive customers for millers and INA's flour distributors.⁴³ ADEPAN offered only veiled suggestions that flour allotted to bread

⁴² Also known as the "Corporación de Defensa de Productos Agrícolas."

⁴³ Founded in 1916, the "Fábrica de Galletas y Confites Noel" had grown considerably by 1956 and was rapidly expanding both volume of production and the product line. See "Fábrica de Galletas y Confites Noel" in *Antioquia, tierra de trabajo y progreso* (Medellín: Interprint, 1961), 190-191.

bakers was being diverted to cookie and cracker makers instead.⁴⁴ Add to this the inefficiencies within INA itself, and it does seem likely that such diversion occurred.⁴⁵

For ADEPAN, more equitable and efficient distribution was as important as increasing the amount of imports. Winning the right to act as INA's official distributor of wheat flour designated for the bread-baking industry several months after its establishment in 1956 was thus a significant achievement for the new organization and an impressive demonstration of its influence on the national stage.⁴⁶

Despite the fact that the economic situation had become so bad by the end of 1956 that the government closed the Oficina de Registro de Cambios, an act which basically prohibited all imports, ADEPAN worked together with INA during the last months of the year, and the first months of 1957 to distribute the flour that had arrived through the PL 480 program. An "exception policy" was put in place, which permitted some essential food imports and raw materials to enter the country.⁴⁷ Wheat and flour were included on this short list. However, the amount imported was ultimately much

⁴⁴ La crisis harinera," *PC* No. 9 (July 1958): 5; "Por una nueva importación de harina," *PC* No. 9 (July 1958): 7-8.

⁴⁵ In 1951, INA was criticized for complete lack of organization in distributing food items around the country. At the time there was an INA office in Buenaventura, Colombia's main port on the Pacific Coast. The nearest large city is Cali, 46 miles away. Apparently, the officials in charge of the INA office in Buenaventura preferred living in Cali. Thus, when shipments arrived to the port, they would be shipped to Cali, paying freight costs to get there. Once distribution to the rest of the country was requested, the food items would be shipped back to Buenaventura, and from there on to other parts of the country, thus twice paying freight costs for two unnecessary train trips. See, Alvaro Miranda, *Colombia la senda dorada del trigo: Episodios de molineros, pan y panaderos, 1800 a 1999* (Bogotá: Thomas de Quincey Editores Ltda., 2000).

⁴⁶ That ADEPAN was responsible for distributing flour in 1956 can be inferred from announcements made in 1957 about flour sales, its annual report of activities in 1958, and informal histories of their relationship INA. "Harina americana," *PC* No. 2 (December 1957): 2; "La labor de Adepán en 1958," *PC* No. 13-14 (November-December 1958): 18-19; "Controles necesarios," *PC* No. 16 (February 1959): 5.

⁴⁷ Sáenz Rovner, *Colombia, años 50*, 205.

smaller than the contract initially specified, amounting to only approximately US \$5,000,000 of wheat.⁴⁸

Such a reduced amount didn't last very long, and soon Colombia and the United States entered negotiations for a new contract. Meanwhile serious political conflict began to exacerbate the instability of the economic situation. Several months earlier, the leaders of the Conservative and Liberal parties had met in Benidorm (Switzerland) and signed a pact agreeing to form a coalition and present a candidate to oppose Rojas Pinilla in the upcoming election. Calling themselves the "Frente Civil" (Civil Front), the coalition received widespread support from a various sectors of the country's oligarchy. In response, Rojas Pinilla embarked on a campaign of severe repression against its leaders.⁴⁹

Business activities continued despite the political turmoil. On April 16, 1957, the Rojas Pinilla administration signed Colombia's fourth PL 480 contract with the United States, which included approximately US \$5,000,000 of wheat and wheat products. A new condition was attached, as onerous as the previous one requiring Colombia to purchase additional amounts through regular commercial channels. When the Eisenhower administration first created the PL 480 program, it stipulated that the U.S. could demand dollars for payment at any time, if circumstances in a given country or with its currency deemed it necessary. Such was their assessment of the situation in

⁴⁸ I can find no sources to explain why there was such a discrepancy between the contract as it was apparently signed and the amount that was actually imported, but one can surmise that the precarious economic situation was an important factor. See "'The Seventh Semi-Annual Report on Activities Carried out under Public Law 480, 83D Congress, As Amended, Outlining Operations under the Act during the Period July 1 through December 31, 1957,'" (Washington: House of Representatives, 85th Congress, 2nd Session, Document No. 323, February 4, 1958), 30.

⁴⁹ Ayala Diago, *Resistencia y oposición*; Galvis and Donadio, *Colombia Nazi*; Palacios, *Between Legitimacy and Violence*; Sáenz Rovner, *Colombia, años 50*.

Colombia at the time, and thus, the U.S. demanded that 30% of the total be paid in dollars rather than in pesos.⁵⁰

But before any monies of either currency could be paid, Rojas Pinilla was ousted from power. The leaders of the Conservative and Liberal parties had been working together with industrialists and several disaffected military leaders to force Rojas Pinilla to resign. The “Frente Civil” by this time had changed its name to the “Frente Nacional” precisely so that they could incorporate the military in their anti-Rojas campaign.⁵¹ On May 10, 1957, a military junta consisting of five generals took the reins of government, guaranteeing to hold elections and return Colombia to civilian rule as quickly as possible.⁵²

The promise of political stability, nonetheless, had no effect on the global coffee market and Colombia’s foreign reserves continued to plummet. Hoping to secure loans from the World Bank, the military junta devalued the peso and presented an austerity plan, which drastically cut the government’s budget. Restrictions on imports of raw materials were relaxed, but those on certain food and consumer goods remained in place. Predictably, the cost of living rose dramatically.

⁵⁰ “Favorable modificación al acuerdo agrícola,” *PC* No. 12, (October 1958): 10-11. I give an approximate amount in this case because the record is unclear. Different reports list different amounts for the same contracts and thus, it is difficult to discern with precision how much wheat was sold to Colombia. The 7th report, for example, indicates that the total amount of the contracts signed with Colombia between July 1, 1956 and June 30, 1957 was US \$8,400,000. The 9th report, however, indicates that the total amount for that same period was US \$11,200,000. See, “The Seventh Semi-Annual Report on Activities Carried out under Public Law 480,” 30; “The Ninth Semi-Annual Report on Activities Carried out under Public Law 480, 83D Congress, As Amended, Outlining Operations under the Act during the Period July 1 through December 31, 1958,” (Washington: House of Representatives, 86th Congress, 1st Session, Document No. 60, January 29, 1959), 32-37.

⁵¹ Mauricio Archila Neira, *Idas y venidas, vueltas y revueltas: Protestas sociales en Colombia, 1958-1990* (Bogotá: Instituto Colombiano de Antropología e Historia/Centro de Investigación y Educación Popular, 2003), 89.

⁵² Ayala Diago, *Resistencia y oposición*; Galvis and Donadio, *Jefe Supremo*; Sáenz Rovner, *Colombia, años 50*.

Of course, prices for specific items rose at different rates. Cornmeal, for example, produced from locally grown corn, rose only five cents a pound between May 28 and July 17 in Medellín. The price of rice remained constant during the same period. Wheat flour, on the other hand, rose twenty cents a pound. Recognizing the difficulties that this would cause for popular sectors, on July 1, the military junta raised the minimum wage. As the Minister of Fomento explained during an interview broadcast on the radio program "La Opinión" later that month, the military junta recognized that the peso devaluation meant that prices for certain items, such as "cacao, wool, cotton, lard, rubber, wheat, insecticides and agricultural machinery," would be most affected, and that was precisely why they also implemented the wage increase. Note that, except perhaps for lard, none of these items were consumer goods. All of them, ultimately, were raw materials for industrial use. That the military junta intended to continue the economic policy of import substitution and emphasis on industrial development is evident from the Minister's explanation of the mathematical equations that were used to determine changes in the cost of living, which ultimately, led him to the conclusion that, despite higher prices for many items,

...workers still have, for now, an appreciable margin between the higher living costs and the salary increase – at least 10%, which has ensured continued consumption of industrial goods, and for some articles, such as beer, there has even been a substantial increase in sales.⁵³

⁵³ "La demagogía y el costo de la vida" (radio address by the Minister of Finance, undated). AGN, RP, Junta Militar, Correspondencia/Ministerio de Fomento, 1957, B 3, F 59, f34-39. The statistics the Minister presented were compiled by Empresas Municipales de Medellín. On the increase in the minimum wage, also see Sáenz Rovner, *Colombia años 50*, 237.

Putting aside the questionable implication that hungry people are just as well off drinking beer as they are eating bread (or *arepa*, the corn-based staple food of Colombia), the Minister's assertion highlights the ongoing conflict between wheat and barley growers in the department of Cundinamarca, discussed at greater length in a subsequent chapters. More important in this context, is that, for the Minister, protecting consumers began with protecting industrialists, and for the moment, the situation was manageable.

The future, though, looked far bleaker. The Minister expressed doubts about the efficacy of the wage increase in coming months, when the effects of the devaluation would truly be felt by industrialists and consumers alike. Asserting that the readjustment in the price of Colombian currency had not yet worked its way fully through the economy, the Minister made the dire prediction that "...many imported articles have not reached their readjustment prices and nationally produced goods have not yet felt the impact of higher costs for tools, fertilizers, and workers' salaries."⁵⁴ In other words, it was going to get a lot worse before it got any better.

How did bakers cope with this ever-worsening situation? Between the political intrigues of late April and early May, the ousting of Rojas Pinilla, and the devaluation of the peso, the PL 480 contract signed in April had been left unfulfilled and in limbo. ADEPAN lobbied the military junta to honor the contract and eventually succeeded in convincing it to do so, but the imported wheat did not arrive until November.⁵⁵

ADEPAN was once again put in charge of distributing it to Colombia's bakers

⁵⁴ *Ibid.*

⁵⁵ "Harina americana," *PC* No. 2 (December 1957): 2; "Nuestras seccionales," *PC* No. 3 (January 1958): 13.

throughout the country, although it seemed that some of it allotted for the bread makers still managed to find its way to the cracker and cookie companies.⁵⁶ But before November, while they waited for flour to arrive, many bakers apparently cheated their customers by either making smaller loaves or making the loaf volume appear the same by adding more yeast and baking soda, but still charging the same amount as always. In a letter to the Minister of Agriculture, the SAC accused the bakers of such unsavory business practices and suggested that they be compelled to sell small loaves for one peso, rather than the five pesos they regularly charged. The SAC claimed that all other countries around the world had such legislation, and that inertia was the only reason it hadn't yet been decreed in Colombia.⁵⁷ ADEPAN would face similar charges at various points over the subsequent years and always vociferously denied them while speaking out against attempts to pass such legislation, claiming that it was not economically or technically feasible for bakers to sell loaves of bread that cost only one peso.⁵⁸

The SAC made other accusations in their memo to the Minister of Agriculture, directed not at Colombia's bakers, but at the nation's millers. Arguing that imported wheat and flour could last longer if it were mixed with national flour, the SAC argued that millers should be compelled to purchase all of the wheat produced in Colombia. ADEPAN eventually joined in this call, doing so in response to speculative practices by the millers. The bakers' battles with the millers ultimately came to play a decisive role

⁵⁶ "Cartas cruzadas entre la Corporación de Defensa de Productos Agrícolas 'INA' y Adepán sobre la distribución de harina Americana," *PC* No. 1 (November 1957): 3.

⁵⁷ "Memorandum para el Sr. Ministro de Agricultura," AGN, RP, Secretaría General, Sociedades/Memorandum, 1957, B 297, F 63, f4-8.

⁵⁸ "Estabilización de precios," *PC* No. 11 (September 1958): 5; "Noticias que nos interesan," *PC* No. 21 (January 1961): 14-15.

in the organization's self-perception and public image. While it was still a diverse organization of large and small bakery owners, it presented an image of itself as "gentlemen," equal to Colombia's industrialized millers. This helped the organization garner a place for itself at the table of negotiations among the "industrial gentlemen" who worked with President Alberto Lleras Camargo to stabilize the national economy after the ouster of General Rojas Pinilla in 1957.

The Scourge of Speculation and the Forging of an Industrial Identity

The advertisement on the back cover of the inaugural issue of *El Panadero Colombiano* in November 1957 was rather ironic. The Compañía Nacional de Levadura Levapan, a company that produced yeast, tried to entice bakers to purchase its product by declaring: "With every pound of Levapan Yeast that you use, you contribute to the country's economic independence by saving foreign reserves."⁵⁹ The irony was that the pages between the covers were filled with advertisements for Colombian brands of flour made with grain imported from the United States or for U.S. brands directly imported to Colombia.⁶⁰ Of the five advertisements for flour, only one explicitly stated that it sold flour made from national wheat, along with its "Super-Especial Americana" brand.⁶¹ Another Colombian brand, "Vitaminarina" did not say whether it used

⁵⁹ "Símbolo de un gran esfuerzo colombiano!" *PC* No. 1 (November 1957): back cover.

⁶⁰ All from *PC* No. 1 (November 1957): "Premio a la Excelencia," ad for La Insuperable flour produced by Generoso Mancini & Cia, S.A. in Barranquilla: 9; "Molino Pam-Pam, Ltda," ad for the Super-Especial Americana flour produced by Pam-Pam Mills in Bogotá: 31; "¡La Famosa Harina de Trigo!" ad for Pillsbury's Rey del Norte brand: 32; "La Harina Gold Medal" ad for flour of the same name made by Washburn Crosby Co.: 33.

⁶¹ "Molino Pam-Pam, Ltda," *op. cit.*

American or national wheat in its flour, but was probably a mixture of the two.⁶² In contrast, it is likely that the Colombian brand “La Insuperable” was made solely with imported wheat.

If their ads didn’t explicitly state where their wheat came from, how is it possible to guess with any accuracy what kind the mills were using? The clue is where the mills were located. The SAC’s recommendation in the memo to the Minister of Agriculture that mills be required to absorb all the wheat produced nationally was eventually put into practice. But it was implemented in a way that was sure to cause conflict as time went on. Millers in the “productive zone” – the internal highland departments of Cundinamarca and Boyacá, where wheat was grown in Colombia – were the ones required to absorb all of the nationally produced grain, while millers in the “non-productive zone” – in this case, mainly the city of Barranquilla on the Atlantic Coast – were not. In theory, this was an equitable policy; with transportation costs between the interior and the coast as high as they were, it was deemed unfair that millers in Barranquilla should have to pay a higher price for grain that was considered inferior, when they could get higher quality grain at a cheaper price by importing it from the United States.

Of course, the larger irony is that there were so many ads for flour when it was in such short supply in the first place. After the long-awaited arrival of the PL 480 shipment at the end of the year, no new contract was signed. The devaluation of the peso had created more confidence among global lenders (the World Bank, for example),

⁶² “Vitaminizada,” ad for Harina Vitaminarina made by Molinos La Concepción S.A. & Molinos Cundinamarca, S.A., in Bogotá, *PC* No. 1 (November 1957): 2.

but credit was still scarce and the coffee market had not recovered and helped Colombia rebuild its foreign reserves. Other than emergency measures such as the devaluation, the minimum wage increase, and expansion of social assistance in October 1957 to alleviate the effects of the devaluation among poorer sectors, the military junta introduced no major changes in economic policy and basically acted as a placeholder, keeping the national government running until civilians could once again take the reins. The political machinations leading up to that transition absorbed much of the nation's energy and attention. While the National Front had initially agreed to support a Conservative as its candidate for the presidential election set for May 1958, in the end, a Liberal, Alberto Lleras Camargo, became the National Front candidate. He won the election and was inaugurated on August 7.⁶³

Persistent shortage, rising prices in general, and government inattention was an ideal situation for flour speculators looking to make a tidy profit. ADEPAN recognized that many of the baking industry's suppliers were "serious" and "responsible" and not out to take advantage of economic and political instability.⁶⁴ For example, in March 1958, the Empresa Palmin, Ltda., a margarine manufacturer, lamented the "anxious situation" caused by the dramatic rise in prices and announced that, considering the "new climate of national understanding," it would not raise its prices, but continue to sell its margarine at the rates in effect since June 1957, before prices rose dramatically

⁶³ Archila Neira, *Idas y venidas*; Ayala Diago, *Resistencia y oposición*.

⁶⁴ "Editorial," PC No. 1 (November 1957): 5.

following the devaluation.⁶⁵ Similarly, partially in response to the scarcity of raw materials and dramatic prices increases, in June 1958, fourteen bakers in Cali met to form a new section of ADEPAN in that department. An important collaborator at that first meeting was José Ignacio Sánchez L., the manager of Compañía Fleischmann Colombiana, Inc., who promised to be a constant partner in the struggle to stabilize prices for commercial and consumer goods.⁶⁶

Nevertheless, despite the presence of these apparently well-intentioned companies, speculation was a growing problem. After praising the serious and responsible ones that dominated the market, ADEPAN denounced the

...infinity of opportunists who keep their eye out for a certain set of circumstances, so that they can 'reap a harvest,' exploiting [others] and creating urgent situations, wringing [their profits] out the bakers' efforts, sacrifices, and hard work.⁶⁷

By July 1958, speculation had become so bad that bakers threatened to eliminate the sale of "five peso" bread – a low-cost option for Colombia's poorest residents – and to decrease the size of other loaves, while increasing their price.⁶⁸ Bakers did not make good on this threat, and instead, claiming that they always had the public good in mind, responded to the rising prices (reaching the "price of gold" they claimed) by

⁶⁵ "La Empresa Palmin Ltda, al servicio de los panaderos, informa a sus clientes y amigos," *PC* No. 5 (March 1958): 31.

⁶⁶ "Adepán en Cali," *PC* No. 8, (June 1958): 20. While the available record does not provide enough information to determine whether or not Fleischmann Colombiana fulfilled its promise about keeping its prices stable, it certainly kept another promise it made that day, which was to promote bread consumption in Colombia, as will be discussed in a later section. Also, the connection between ADEPAN and Fleischmann Colombiana appear to have been quite strong. Fleischmann was not only one of *El Panadero Colombiano's* most reliable advertisers – it not only placed an ad in the inaugural issue and every one after that, but consistently bought double-page spreads in almost every issue, no doubt generating significant advertising revenue for the magazine. Moreover, in January 1958, ADEPAN saluted José Gregorio Villalobos, a Fleischmann salesman, for his twenty-years experience at the company. ADEPAN rarely saluted other such employees in a similar fashion. See "Noticias breves," *PC* No. 3 (January 1958): 27.

⁶⁷ "Editorial," (November 1957), *op. cit.*

⁶⁸ "Noticias breves," *PC* No. 9 (July 1958): 4.

sacrificing their own profits in order to maintain the “weight, volume, quality, and price of bread” at constant levels.⁶⁹ That they were simultaneously defending themselves from the SAC’s charges that they were cheating customers goes without saying.

Based on the example of Palmin and Fleischmann, although speculation was a problem affecting all of the raw materials bakers needed, certain products, such as margarine, were available at a reasonable price.⁷⁰ It was flour – bakers’ principal ingredient – that was most affected. But who was speculating with flour? Between November 1957 and July 1958, ADEPAN commented continuously on the scourge of speculation, lamenting its horrible effects, and using it as a clarion call to expand membership and encourage greater participation in the organization. As bad as speculation was during those months, however, ADEPAN seemed reluctant to point fingers and instead made strong, but still vague statements, such as when they warned that the only way for bakery owners “to stay out of the hands of unscrupulous speculators” was for all of them “to remain firmly united” or when they indicated that before they had started the organization, their “dispersion made them victims...of the speculation rampant in the market.”⁷¹ Even dramatic descriptions of the horrible effects of speculation were cloudy on crucial details:

⁶⁹ “Estabilización de precios,” *PC* No. 11 (September 1958): 5.

⁷⁰ ADEPAN seemed to suggest as much in July 1958 and again in February 1959, when it indicated that speculation and scarcity had affected other raw materials, such as margarine and sugar, but focused almost all of its efforts on flour, and only mentioned the other ingredients in passing. See “La crisis harinera,” *PC* No. 9 (July 1958): 5; “Controles necesarios,” *PC* No. 16 (February 1959): 5.

⁷¹ “Editorial,” *PC* No. 1 (November 1957): 6; “Defensa gremial y progreso,” *PC* No. 8 (June 1958): 5. Speculation was not a problem only of flour. Sugar, oils, and many other products were also scarce and subject to speculation, as was currency. Obviously, the most significant problem for bakers was flour scarcity and hence what they most emphasized. For a statement of speculation’s effect on all of the ingredients bakers used, see “Controles necesarios,” *PC* No. 16 (February 1959): 5. On currency and other kinds of speculation in this period, see, Saénz Rovner, *Colombia años 50*.

The past proves, as the evidence attests, that ADEPAN's distribution of imported flour met bakers' most pressing need. There was not even a whisper of speculation, nor anarchy in the flour market, and neither was there any unstable or disruptive behavior in pricing policies. During the time that ADEPAN was responsible for the distribution of flour, it was able to consistently avoid the dangerous fluctuations that once again threaten the national baking industry. And naturally, it is to be expected that [some individuals] will take advantage of these circumstances, whether because of selfishness or group interest.⁷²

As strong as a statement as this was, the bakers left the identity of those selfish individuals a mystery. After July 1958, however, their complaints took on a new tone. Some of them were slightly less vague, with subtle hints about who they believed the perpetrators to be. Others were outright accusations that it was Colombian millers who were speculating with flour. "Great quantities of flour leave the mills destined for a commerce awash in the crime of speculation," they claimed at one point, and "it's really strange that the milling industry, which only exists because of the baking industry, is engaged in the destruction of the latter," they claimed at another.⁷³ More subtle accusations were found in the absence of the miller's national association (Asociación Nacional de Molineros – ASEMOL) on the lists of entities engaged in the battle against speculation. In September 1958, for example, ADEPAN indicated that it had been working closely with the Instituto Nacional de Abastecimientos (INA) to ensure a fair distribution of flour.⁷⁴ The following month, ADEPAN lamented that, while it had been able to count on the important assistance of governmental entities (such as INA or the Ministry of Agriculture) to combat speculation, it was imperative to "extend the means

⁷² "Control de harinas importadas," *PC* No. 5 (March 1958): 5.

⁷³ "La crisis harinera," *PC* No. 9 (July 1958): 5.

⁷⁴ "Una lucha sin tregua," *PC* No. 11 (September 1958): 10.

and resources of cooperation to a broader array of sectors – sectors that have unavoidable responsibilities to the collective good, to the national front of consumers.”⁷⁵ ADEPAN’s effusive praise of INA’s cooperation in the battle against speculation contrasts sharply with their criticism of ASEMOL’s apparent lack of interest in working collaboratively. “Perhaps, and without hyperbole, there is no organization that has kept its promise to the Colombian people like INA has,” ADEPAN declared at the end of 1958.⁷⁶ ADEPAN accused ASEMOL, on the other hand, of having no interest in Colombian consumers, in “eradicating scarcity” or in “national rehabilitation”:

...ADEPAN has tried to collaborate with ASEMOL through all honorable means available. Unfortunately, up to now, ADEPAN’s elevated aspirations in this regard have been unsatisfied.⁷⁷

Increasing directness on the part of the bakers coincided with the installation of the Lleras Camargo administration. In fact, some of the strongest condemnations of the millers came in the months of July and August 1958 – precisely when Lleras Camargo was completing his cabinet appointments and preparing to be sworn in as president. Although ADEPAN had been striving to forge stronger ties with the incoming first government of the National Front since December 1957 when it first seemed likely that they would win the presidential election, it significantly stepped up its efforts in the weeks immediately before and after the president’s inauguration.⁷⁸ For example, when Lleras Camargo designated Augusto Espinosa Valderrama the new Minister of

⁷⁵ “Sentido de cooperación,” *PC* No. 12 (October 1958): 5.

⁷⁶ “La cooperación del INA en 1958,” *PC* Nos. 13-14 (November-December 1958): 20-21.

⁷⁷ “Asemol puede colaborar,” *PC* No. 10 (August 1958): 21.

⁷⁸ On ADEPAN’s recognition of its need to have a strong connection with the national government, see “Editorial,” *PC* No. 1 (November 1957): 5.

Agriculture, ADEPAN effusively endorsed his selection.⁷⁹ The following month three important members of ADEPAN – Pierre Albrecht Jr. (President), Fabio Jaramillo Gómez (Manager) and Hernando Vélez Angel (principal board member) – met with Espinosa Valderrama. The meeting centered on the problem of flour scarcity and the principal objective was to convince the new Minister that a renewal of imports, particularly through the PL 480 program, would help to alleviate the problem and reduce the cost of living for Colombian consumers. Espinosa Valderrama demonstrated “good will” and “great courteousness” and seemed interested in helping the bakers resolve the problem of flour scarcity. Although it is probable that, like most politicians, Espinosa Valderrama was skilled at making vague promises without actually committing himself to anything specific, Albrecht, Jaramillo Gómez, and Vélez Angel left the meeting feeling very enthusiastic and quite certain that the new Minister was on their side and ready to help them solve the problem of scarcity. As they later commented: “...it seems evident that in a few weeks, the skies will have cleared for the baking industry, exhausted by the tremendous weight of scarcity and high production costs.”⁸⁰ That month, ADEPAN also announced that it was conducting a detailed study of speculation in the flour market, to determine how bad it had really become. They intended to present the results of their investigation to the Ministry of Development and to the Secretary of Economic Affairs, part of the president’s cabinet.⁸¹ As if leaving no bases uncovered, that month ADEPAN also roundly praised INA and the incredible

⁷⁹ “El nuevo Ministro de Agricultura,” *PC* No. 9 (July 1958): 12.

⁸⁰ “Entrevista Minagricultura-Adepán,” *PC* No. 9 (July 1958): 19.

⁸¹ “Noticias breves,” *PC* No. 10 (August 1958): 4.

work it had been doing to combat high prices and scarcity. “Few public entities have fulfilled their missions the way that INA has,” ADEPAN claimed in *El Panadero Colombiano*, and despite “diverse” criticism, “it has overcome obstacles and created an atmosphere of public confidence.” So great was the work it was doing combating speculation, ADEPAN declared, that the government needed to increase its budget and allot it more resources, actions which would help to “satisfy the public’s desire to see balance between political democracy and...economic democracy.”⁸²

Although the directors of ADEPAN were probably sincere in their praise of INA, it seems hardly coincidental that the very same month they also sent a letter to Enrique Vargas Nariño, the manager of INA, asking him not only to increase the amount of flour imported to the country, but also to grant bread makers the necessary licenses to freely import “qualified flours” – a special subset of flour needed for mechanized baking, and already used by the cookie and pasta industries, which had official permission for such imports. ADEPAN hinted at the unfairness of allowing companies such as Noel to import such flour, while prohibiting the bread-baking industry from doing so, despite the fact that there were mechanized bread-makers who also required it. Moreover, the requested increase in basic flour was quite substantial: an immediate shipment of 20,000 tons and a monthly shipment of 3,500 tons after that.⁸³

As earlier indicated, these efforts to cultivate a wide variety of government ministers, cabinet members and administrators at a time of major political transition

⁸² “El Ina contra la escasez y los altos precios,” *PC* No. 10 (August 1958): 15.

⁸³ “Por una nueva importación de harina,” *PC* No. 9 (July 1958): 7-8.

was accompanied by stronger, and more direct, accusations against the millers, such as the assertion made in August 1958 that

Everywhere around the world, the milling and baking industries are seen as complementary, overlapping, and contiguous; as such, they work in close harmony and great confidence. But between us [in Colombia] it is undeniable that the millers have declared a callous and exhausting price war against the bakers.⁸⁴

Whether such accusations were persuasive is unclear. Continuing shortages, spiraling costs for consumer goods, and increasing urban and labor unrest, on the other hand, were quite persuasive, and led INA to approve ADEPAN's August 1958 request for a small amount of "American" grain to be allotted to them on a monthly basis, so that they could grind it and sell the flour on their own.⁸⁵ Where this grain was to be milled was left unstated. One possibility is Molino Pam Pam (Pam Pam Mills) in Bogotá. Pam Pam was co-owned by Hernando Vélez Angel and Jorge Sierra T., both board members of ADEPAN. This was the only apparent case of such crossover, but whether it was singular or not, it suggests that the grain granted to ADEPAN in August 1958 was being ground by its in-house millers.⁸⁶ ADEPAN sold the "highest quality" flour produced from this grain to bakers for twelve pesos less than the millers' official price of \$170.00 pesos for 112½ kilos. Lest ADEPAN be accused of undercutting the millers with these reduced prices, they were quick to add that in some parts of the country, speculation had driven the cost of flour to \$205.00 pesos for the same quantity and quality.

⁸⁴ "Servicios contra especulación," PC No. 10 (August 1958): 5.

⁸⁵ Ibid. On the growing urban and labor unrest in response to the economic challenges facing the country's popular sectors, see Archila Neira, *Idas y vendias*; Ayala Diago, *Resistencia y oposición*.

⁸⁶ "Nuevas instalaciones molineras," PC No. 2 (December 1957): 31.

Two hundred additional tons of grain on a monthly basis (the amount INA allotted to ADEPAN) was certainly enough to keep the baking industry afloat, but most definitely not enough for it to thrive. Fortunately, ADEPAN's efforts to cultivate all of those government ministers and administrators (as well as to publicize their plight in the media) seemed to pay off with an important invitation.⁸⁷ On August 9, Alberto Lleras Camargo convened a meeting between himself, the Ministers of Finance and Economic Development (Hernando Agudelo Villa and Rafael Delgado Barreneche, respectively) and the leaders of some of the main business associations in Colombia at the time. Aside from the three major ones – ANDI, SAC, and FEDECAFE – these included the Banking Association, the National Association of Coffee Exporters (a rival to FEDECAFE), the Federation of Colombian Exporters, the National Federation of the Metallurgic Industry, the National Association of Drug-Makers, FENALCO, and ADEPAN. The meeting's central topic was stabilization of the national economy and the president and ministers outlined their plans regarding taxes, monetary policy, exchange rates, credit, and promotion of productive activities. They discussed how all of the government's various agencies would work collaboratively to implement these plans.⁸⁸

After the presentation by the president and the two ministers, representatives from all of the associations present attended a smaller meeting, at which they ratified a "Gentlemen's Agreement" to stabilize prices. Specific details about the agreement, or

⁸⁷ In September 1958, ADEPAN praised the collaboration of the press in Colombia in "keeping public opinion so well-informed about the organization's central goals." See "La prensa nacional y Adepán," *PC* No. 11 (September 1958): 31.

⁸⁸ "Adepán ofrece su colaboración a la política económica del gobierno," *PC* No. 19 (August 1958): 10-11.

what transpired during negotiations are absent in *El Panadero Colombiano's* report. Traces of discord at the meeting are evident, however, in the general statements about the importance of the meeting for Colombia's consumers and bakers. Extolling the value of the monthly allotment of grain granted by INA, ADEPAN asserted that its efforts on behalf of bakers would save the industry over one million pesos annually, savings which, conceivably, would be passed on to consumers. Moreover, ADEPAN claimed that for the foreseeable future, grain production would not increase in Colombia, and further flour imports would thus be required in order to keep baking costs down and bread prices affordable.⁸⁹

Notice that ADEPAN suggested that the solution to the shortage of flour in Colombia was not increased importation of grain, which could have been converted to flour by Colombia's millers, but of grain already converted to flour by milling companies in the United States. ADEPAN further proposed that from an economic standpoint, it made sense to "study all of the aspects connected to wheat importation, to determine if it makes more sense for Colombia to intensify the importation of flour, and progressively decrease the importation of wheat."⁹⁰

For Colombia's millers, these could have been fighting words, and in the next sentence ADEPAN conceded that "...this opinion is not unanimously shared, as the millers naturally believe that the root of the problem is not flour, but the availability of grain." While ADEPAN's report on this meeting was not by any means a blow-by-blow account of the proceedings, its statement regarding the position of the millers suggests

⁸⁹ Ibid.

⁹⁰ Ibid., 11.

that such arguments may have indeed been made as the representatives of the various associations negotiated their “gentlemen’s agreement.”⁹¹

But based on the list provided in *El Panadero Colombiano*, the millers’ association was not even present at the meeting. The subsequent assertion by ADEPAN, countering the (apparent) objections of the millers, indicates who might have been speaking on their behalf:

...we really must take into consideration that Colombia has experienced abnormal growth in the milling industry; the country has three times the milling capacity it actually requires to meet its current consumption needs. The millers need to recoup losses on their capital investment through high prices on flour destined for commercial use.⁹²

A 1964 study of the wheat milling industry indicated that 80% of Colombian mills were using technology that was at least thirty years old, and in quite a few cases, fifty. Their milling capacity was, correspondingly, quite low. Nevertheless, the study concluded that only approximately 50% of the total milling capacity available in the country at the time was actually necessary to meet Colombian demand for wheat products. Overcapacity was the result of a small minority of intensely capitalized, highly mechanized industrial millers who had invested in the latest technologies, perhaps in the days of the coffee bonanza in the early 1950s, but had never been able to fully utilize or make profit from their investments, due to consistent grain shortages and stagnant consumer demand. Some of these highly capitalized, industrial millers

⁹¹ Ibid.

⁹² Ibid., 11.

had strong connections to ANDI, and that association was likely speaking on their behalf at the meeting to ratify the agreement on price stabilization.⁹³

While ADEPAN did not immediately achieve its goal of initiating a study to determine if it was more economical to import wheat or flour, its presence at the meeting attests to its growing stature with the newly installed Lleras Camargo administration and provided it with another opportunity to contrast its willingness to work toward “economic rehabilitation” with the millers’ apparent lack of interest in collaborative efforts toward national recovery. Read one way, to state that “the spirit of cooperation that the country needs right now was palpable among the associations present at the meeting,” simply described what ADEPAN’s representatives observed of the meeting’s mood. But, if one remembers that the millers association, for whatever reason, was not in attendance, the statement also displayed the whiff of a gibe at ASEMOL – a reminder of who did and did not have the country’s best interests in mind.⁹⁴

ADEPAN’s subtle hints about the millers were apparent even when they were discussing other things. For example, at one point, ADEPAN outlined a series of proposals it intended to make to the Ministers of Finance, Agriculture and Economic

⁹³ INA-División Técnica, “Estudio sobre los molinos del trigo del país,” Presentation by INA to the “Congreso Triguero” (Wheat Congress), held in Bogotá in 1964. One of the main problems/criticisms of ISI, in fact, was that many industries rapidly grew up apparently overnight, without a market sufficiently large enough to absorb what they produced, ultimately resulting in widespread failure (and wasted investment). See, Albeiro Acevedo, Guillermo Quirós, & Ramiro Restrepo, “Una aproximación sobre el desarrollo industrial colombiano, 1958-1980,” in *Lecturas sobre economía colombiana, siglo XX*, ed. Jesús A. Bejarano (Bogotá: Procultura, 1985), 14. On the connections between highly capitalized millers and ANDI, see, for example, “Generoso Mancini & Co., Ltda.,” and “Asociación Nacional de Industriales – ANDI – Seccional de Barranquilla,” in La Corporación Cívica de Barranquilla, *Atlántico 50 años: Un homenaje al departamento del Atlántico en el primer cincuentenario de su fundación* (Medellín: Interprint, 1960).

⁹⁴ “Adepán ofrece su colaboración,” *op. cit.*, 11. An important point to note is that the conflict between whether or not to import more wheat or more flour leaves the country’s wheat growers completely out of the equation – an issue which will be discussed in greater detail in a subsequent chapter.

Development. These included a campaign to increase bread consumption, assistance in the modernization of the bread-baking industry, and greater collaboration between the milling and baking associations. The first two proposals seem reasonable enough, but the third is odd. Why would the government need to help promote collaborative efforts between two private business associations? Rather than offering a legitimate solution to a problem, its inclusion appears to signal the uncooperativeness of ASEMOL and the subsequent insistence that the two industries “....really were connected and complementary” practically belabors the point. Such innuendos continued over the next several weeks. The following month, for instance, ADEPAN made a similarly suggestive statement when it reported that the country’s “most important associations” had been honoring the price stabilization agreement, even though there was not “total uniformity” at the national level. Worded this way, ADEPAN benignly described the national situation, expressed its hope that all of the associations would come on board, and underhandedly criticized ASEMOL all at the same time.⁹⁵ A month later, in October, the lack of collaboration between the two associations, and the continued resistance of some sectors to implement the price controls stipulated by the “Gentlemen’s Agreement” prompted ADEPAN to lament that as long as some industries remained “isolated,” efforts to stabilize prices and keep living costs down would be “unfruitful.”⁹⁶

Of course, Colombia’s millers did not ignore ADEPAN’s accusations and insinuations, and rebutted with criticisms of their own. As can be imagined, one of the

⁹⁵ Ibid., 11; “Noticias breves,” *PC* No. 11 (September 1958): 4.

⁹⁶ “Sentido de cooperación,” *op.cit.*

most serious centered on the 200 tons of grain that had been allotted to ADEPAN on a monthly basis beginning in August 1958. Although many people questioned why grain that had been imported for the millers was being diverted to the bakers, clearly, no one questioned this more vociferously than the millers themselves. Two months after INA approved the monthly allotments, ADEPAN found itself having to answer the millers' questions about this policy. In a full-page defense, ADEPAN first described the unstable flour market that prompted their initial request to INA, decrying, once again, the horrible effects of scarcity, speculation and rising prices for flour on bakers and consumers. Everyday Colombians were, in fact, the foundation of ADEPAN's defense, claiming that the only people who could oppose INA's policy were those who put "the interests of monopolies and speculation" above "workers and consumers." Moreover, ADEPAN argued, the policy was beneficial in a number of respects; aside from supplying bakers with the materials they needed and helping to prevent scarcity of bread, it bolstered efforts to stabilize prices, improved the morality of the marketplace (thus discouraging continued speculation), set good standards for future business transactions, and reduced "social decomposition" by encouraging greater associative activity – a vital element at a time of national rehabilitation. As if to emphasize ADEPAN's commitment to working collaboratively for the public good, the very next paragraph of their defense returned to their by-now standard accusation against the millers – essentially, that they weren't team players and were not interested in helping the nation recover from economic and political instability:

In the current circumstances, it is obvious that the baking industry is at the mercy of the millers and subject to their will. Although milling and baking are complementary and linked industries, in Colombia, each one goes its own way, causing great malaise and considerable disruptions.⁹⁷

Ironically, the bakers' forceful response to the millers' question about the allotments from INA came at a time when the method of ADEPAN's attacks on the millers began to shift. While in previous months almost half of the editorials, articles and news items in *El Panadero Colombiano* directly charged the millers with speculation or uncooperativeness, in the October 1958 issue, aside from the negative statements made in their defense of the 200 ton allotment, and one other editorial reiterating ASEMOL's lack of collaboration with the price stabilization agreement, the issue was notable for the dramatic change in tone.⁹⁸ This is not to imply that they were no longer criticizing the millers; on the contrary, their attacks continued, but they were done in a much more subtle, and perhaps more powerful, way.

That month, ADEPAN published the second part of a three-part series about milling technologies in different regions around the world, specifically those that do and do not produce wheat. Penned by Gordon P. Boals, the Director of the Export Program at the Millers' National Federation of the United States, the series combined history, technology, economics and social policy to argue that it was uneconomical for countries such as Colombia to have flour mills, especially modern ones.⁹⁹ The first article in September focused on mills in regions where wheat was both produced and

⁹⁷ "¿Porqué Adepán muele trigo?" *PC* No. 12 (October 1958): 12.

⁹⁸ "Sentido de cooperación," *op.cit.*

⁹⁹ In October 1958, Boals was promoted to Vice-President of the Federation. See "Noticias breves," *PC* No. 12 (October 1958): 4.

imported, such as Europe. Boals began with a short history of the connection between baking and milling, which was that they generally grew in tandem with each other, meeting local demand using local supply, but that late nineteenth century advances in terrestrial and maritime shipping technologies permitted the transportation of flour across much longer distances, leading to commercial flour production on a much larger scale. Milling capacity had, consequently, increased exponentially, particularly in the main exporting countries of Canada, the United States, and Australia, but also in “importing countries” as well. According to Boals, in 1958, many importing countries had milling capacity that far exceeded local supply, and they began to ask for government protection for their industries, mainly consisting of higher import tariffs for flour than for grain. This was “anti-economic,” Boals argued, as it increased the price of bread for consumers, while decreasing its quality (since the protected mills produced poorer quality flour). Although Boals recognized that food shortages in Europe during and after World War II contributed to an accelerated effort to reconstruct destroyed mills or build new ones, once the immediate problem of meeting “insatiable demand” for bread had been solved, the error of building so many mills with the new technologies become apparent. Long-term costs had not been taken into consideration and led to the expensive mistake of protecting milling industries – a sorry state of affairs, when it would have been cheaper to simply import flour from the “exporting countries.” Fortunately, according to Boals, many of those European countries had recognized the error of their ways and had begun to “rationalize” the milling industry,

a policy which basically meant closing unproductive ones and dropping high tariffs for flour.¹⁰⁰

While Boals was sympathetic to the post-war sense of urgency that drove the short-sighted economic policy of extensive mill-building in Europe, he was far less magnanimous to the originators of milling over-capacity in regions that did not produce wheat at all. These regions were generally in the “tropics” or “semi-tropics,” he explained, were often “economically backward,” and in many cases, were islands or colonial territories of a European power. Southeast Asia, coastal West Africa, Central America, the Caribbean, and northern South America were mainly where these “non-producing” regions were located. Nevertheless, due to several decades of importation of well-known brands of flour, many countries in these regions were considered “traditional markets.”

Boals’ second article in the series was clearly an anti-ECLA screed. For example, after his explanation of why these regions were considered “traditional markets,” he claimed that

...the exportation of flour to these regions has been like the importation of coffee or bananas to the United States. It was a natural kind of trade in products that the other country needed and didn’t produce.¹⁰¹

While “dependency theory” had not yet been fully elaborated, Prebisch’s Theory of Unequal Exchange most certainly had, and was, even as Boals wrote, being employed by a variety of Latin American nations as they implemented import substitution development policies. To suggest, then, that the exchange of coffee and bananas for

¹⁰⁰ Gordon P. Boals, “Los molinos en regiones productoras de trigo,” *PC* No. 11 (September 1958): 7-8.

¹⁰¹ Gordon P. Boals, “Molinos en regiones que no producen trigo,” *PC* No. 12 (October 1958): 6 & 8.

wheat was a natural (and by implication, equal) trade, may have been an effort by Boals to discredit protectionist policies in general, and ISI and inward-looking development ones in particular.

This seems even more likely considering Boals' subsequent discussion of countries that had recently ousted European colonial powers and declared independence. Nationalism had become an "active force" in these regions, Boals asserted, and "economic development with improvements in generally low standards of living has become a common battle-cry."¹⁰² At the same time, many of these countries were experiencing the twin phenomenon of population growth and massive rural-to-urban migration, both of which had the effect of increasing consumption of and demand for flour and wheat products. Boals cited statistics from the International Wheat Council demonstrating that between 1949 and 1954, the consumption of wheat products in many of these developing countries had increased between ten and twenty percent, and in others, flour imports had doubled during the same period. Demand was expected to continue to rise for the foreseeable future, especially in the "Far East" and throughout Latin America.¹⁰³

According to Boals, this is when the story took a "strange" and "unexpected" turn. "Promoters," of various stripes had taken advantage of the combination of nationalist economic policies and increasing demand for wheat products to encourage

¹⁰² Ibid., 6.

¹⁰³ Boals attributed part of the increase in wheat consumption in these regions to the inconsistent availability of rice, an assertion that conveniently overlooked the role played by the US-sponsored reconstruction programs in Japan and elsewhere, which promoted bread consumption, as well as the influx of wheat and flour imports after 1954 through the PL 480 program.

the sale of modern milling equipment. These promoters included the manufacturers of milling machinery (particularly those based in Europe), grain exporting interests, highly-capitalized investors (again, mainly European) looking to diversify their portfolios, and investors with little capital, but great willingness to take risks “with other people’s money” and make wild promises that they would be able to help the new millers obtain concessions from their governments to freely import grain without paying tariffs. As Boals indicated, when those concessions failed to materialize, the investors claimed that they had done the best they could, but owed the millers nothing, leaving them to seek protective tariffs against flour imports on their own.

Boals then painted a stark picture of the experience and effect of these mills in regions of the world where wheat was not produced. First of all, they consistently faced an uncertain supply of grain. Disruptions in international trade and bad harvests in exporting countries could cause a mill in a non-producing country to shut its doors. Second, modern mills in non-productive regions wreaked havoc on employment figures. These mills required fewer, more highly trained, workers, and in many cases, these were brought over from other countries, since the local workforce did not have the requisite skills. More significantly, stevedores lost their jobs as flour imports were reduced, a serious problem as dock-work was a major source of employment in these so-called “backward” countries. Third, unless the demand for animal feed was equally as high as the demand for flour, these mills produced flour of consistently poor quality. Generally, during the milling process 25% to 30% of the ground grain was converted to animal feed. If there was no market for this feed, millers extracted a greater percentage

of flour from the grain. This meant that the resultant flour included a significant amount of undesirable “residues” which greatly diminished its quality. Apparently, this was particularly a problem where there was a monopoly in the milling industry. Finally, these mills reduced governments’ budgets. Tariffs on imports were an important source of revenue for many of these countries, but, in many cases, when these mills were established they were granted concessions which allowed them to freely import grain without paying the normal tariffs. According to Boals, in one (unnamed) country, such concessions to modernized milling interests led to a budgetary crisis for the government.

The third article in the series essentially picked up where the second left off, reminding readers that while mills used to exist only where wheat was grown and that modern mills could easily make a wide variety of flours of different quality and grades. He also condemned the growth of milling around the world, claiming that milling capacity had grown so large that the total amount of flour that could theoretically be produced in a day far exceeded daily consumption throughout the world. Finally, he concluded his three-part series by reiterating that new mills in regions where wheat was not produced were a drain on government revenues and bad for consumers who had to suffer from poor quality flour, especially in comparison to the high-quality flour of the exporting countries, such as the United States.”¹⁰⁴

¹⁰⁴ Gordon P. Boals, “Consideraciones generales sobre la molienda de harina,” *PC* No. 13-14 (November-December 1958): 12-13. A significant, but rather odd, sub-point in Boals’ fourth conclusion was that these mills were also a vulnerable industry because their “vital and conspicuous character” meant that they could easily become crucial targets of a military operation. Once again, the destruction of European mills during World War II served as a warning. Multi-million dollar modern mills would be even more difficult to replace or rebuild, he cautioned, if they were attacked during a conflict.

Logical fallacies, internal inconsistencies, racist assumptions, and a little bit of Cold War paranoia clearly plague all three of the articles in this series.¹⁰⁵ Those defects aside, the series was an important part of Colombian bakers' revised strategy in their struggle with the millers. With the new Lleras Camargo administration in power, the possibility that another PL 480 contract could be negotiated seemed high, and the bakers clearly needed as many allies in their camp as possible. ADEPAN had, in fact, begun an informal campaign to promote the renewal of the PL 480 contract several months earlier, at the same time as it had stepped up its efforts to court members of the incoming administration. The roots of this campaign partly lay in the 25-day tour of the United States' wheat industry in June 1958 by Fabio Jaramillo Gomez, ADEPAN's general manager. Invited and sponsored by the U.S. Secretary of Agriculture, Jaramillo was accompanied on the tour by Dr. Douglas Botero Boschel, general manager of ASEMOL, Dr. Luigi Marengon, president of the National Pasta-Makers Federation (FEDEPAS), and Dr. Rafael Camacho, president of SAC. Jaramillo left deeply impressed with the U.S. wheat industry, describing it as both "powerful" and "rational." Although

¹⁰⁵ For example (and in no particular order): 1) If mills are a significant military target, then wouldn't it make sense to have more of them, rather than less, in case one was attacked? 2) Similarly, it seems rather condescending to assume that wars only take place outside of the United States (or the other main exporting countries of Canada and Australia). 3) In the second article, he first says that the promoters have often been unsuccessful at getting concessions for new (or newly modernized) mill owners to freely import grain, but then later says that such concessions are a serious problem for many governments in these countries, because they reduced their revenues so significantly. So, have these promoters been successful or not? 4) To definitively link milling with wheat (and thus "western civilization" via Europe and the Middle East) discounts the importance of milling in civilizations that predate the "Western" one, such as China, and in places where wheat was not consumed, such as Central Mexico and Central America. 5) Why are the development aspirations of newly-independent countries discounted as "nationalist," while the policies he would have these nations adopt – which are ultimately also "nationalist" in that they help wheat growers, machinery manufacturers, millers and shipping companies in the United States (rather than machinery manufacturers in Europe or wheat growers in developing countries) – described with the term "economic" (as opposed to "anti-economic"), which gives them an aura of scientific objectivity and universality? 6) Why would stevedores lose jobs? Flour imports go down, but grain imports would go up, theoretically canceling out any loss of work unloading ships in ports.

it seems implausible that Dr. Camacho would have agreed, according to Jaramillo, the tour members came to the unanimous conclusion that the only way to prevent insufficient wheat production in Colombia from causing severe flour shortages, speculation, and high prices was to import more wheat and flour from the United States. Whether Dr. Camacho agreed or not, Jaramillo concluded his report on the tour with great confidence that the Colombian government would take ADEPAN's proposal to import more wheat and flour seriously, especially because the consequences if it did not was a "critical situation" of bread scarcity and disruption in an industry that employed over 110,000 people.¹⁰⁶

That same month, ADEPAN responded to attacks on the PL 480 program in the national press. Critics claimed that it was nothing more than a commercial endeavor, an opportunity for the United States to sell its surplus crops. Calling such condemnation "unjust," ADEPAN outlined the Minister of Agriculture's response to these criticisms. Dr. Jorge Mejia Salazar was, of course, in the final weeks of his tenure as Minister, soon to be replaced by Espinosa Valderrama; nevertheless, he conducted an "exhaustive" and "careful" study of the program, determining in the end that the United States had acted "...in harmony with the spirit and letter of Public Law 480," and that the program was a useful resource for a developing country such as Colombia, with a variety of positive effects. These included preventing scarcity, preserving foreign reserves, and ensuring stability in the milling and baking industries. Acknowledging the programs' critics, ADEPAN added that, while PL 480 did indeed defend some of the United States'

¹⁰⁶ "Regresó de los Estados Unidos El Gerente de Adepán," *PC* No. 9 (July 1958): 14.

own economic interests, it did so in a way that provided great assistance to developing countries with which it had “profound financial and spiritual links.”¹⁰⁷

Ultimately, for ADEPAN, the economic benefits of the PL 480 program for the United States seemed irrelevant if it equally benefited Colombia. As long as the country was not “self-sufficient” in wheat, ADEPAN argued, it should not refuse any kind of available help, especially at a time when the country was laboring to recover financially and socially from a “...prolonged reign of chaos, violence and political conflict.” Fortunately for ADEPAN, Espinosa Valderrama, the incoming Minister of Agriculture, fully agreed with their position and that of his predecessor, Mejia Salazar. In the same article in which ADEPAN defended PL 480, they reported that Espinosa Valderrama had also studied the program, also shared the conclusion that it was beneficial for Colombia, and believed that ADEPAN’s calls for its renewal were “valid and justified.”¹⁰⁸

Violence was again discussed the following month in another defense of the PL 480 program. Colombia’s inability to supply itself with all of the grain it needed was only partially a consequence of the violence that had caused so much disruption and dislocation in rural areas, ADEPAN argued. Paucity of credit and a shortage of proper farming equipment (due to Colombia’s credit problems and dwindling foreign reserves) wreaked as much havoc, and rehabilitating the parts of the nation that had been “bathed in blood” during the recent phase of violence would require not just political

¹⁰⁷ “Un bien para Colombia: El Pacto de Excedentes Agrícolas,” *PC* No. 9 (July 1958): 15.

¹⁰⁸ *Ibid.*

compromise and a new spirit of cooperation, but infusions of credit and farm machinery as well.¹⁰⁹

But political and economic rehabilitation would take time, and without a renewal of the PL 480 contract, ADEPAN warned, might not happen at all. The consequence of the by-now familiar scenario of flour shortages leading to the collapse of the bread-baking industry was extrapolated to the entire project of rehabilitation: "...it would aggravate social problems and amplify the disruptive factors that impede national prosperity." Colombia would only be able to overcome many of its social and economic problems, ADEPAN's argument continued, after it recognized that it was not, and would never be, a self-sufficient country, at least as far as wheat was concerned. For that reason, it made no sense for the country to deny itself the advantages offered to it through the PL 480 program. It was only by ignoring the social effects of not renewing the contract with the United States that the program's "enemies" could advance their claims, ADEPAN concluded.¹¹⁰

"Self-sufficiency" in wheat – or better yet, Colombia's lack of it – was a common denominator in both of ADEPAN's efforts to defend the PL 480 program, as well as Jaramillo Gómez's report on his tour of the U.S. wheat industry. Note how neatly they dovetail with Boals' three-part series on milling in wheat importing countries. Together, these constitute a new strategy for the bakers in their struggle with the millers. How so? Boals' articles, by focusing as they did on the "big picture" – on the contemporary global situation rather than solely on Colombia – gave the articles an aura of

¹⁰⁹ "Todavía no podemos autoabastecernos," *PC* No. 10 (August 1958): 14.

¹¹⁰ *Ibid.*

impartiality that any discussion by ADEPAN of milling overcapacity in Colombia could never have. That impartiality, combined with Boals' elevated position within a major U.S. industrial association, ensured that his conclusions about the viability of milling industries in wheat importing countries would be more likely to be taken seriously by a wider variety of people in Colombia, particularly those important government ministers who had the power to re-negotiate trade agreements. In other words, ADEPAN had called in an expert. Of course, while he may have been an expert, Boals was hardly an impartial observer, as Colombian millers themselves later pointed out and which will be discussed in a subsequent section. Nevertheless, his observations on the "anti-economic" nature of milling industries in wheat importing countries strengthened ADEPAN's own arguments about the devastating consequences of Colombia's lack of self-sufficiency in wheat.

And again, in September 1958, ADEPAN needed as many allies as possible. During the previous July and August, as ADEPAN simultaneously attacked the millers' uncooperativeness and greed, while defending PL 480 imports, they never made any definitive statements regarding the importation of grain versus flour. As Jaramillo Gómez' report explicitly indicated, "everyone" on the tour had agreed that Colombia needed to import both. In the August defense of PL 480, neither grain nor flour were mentioned specifically. Rather, imports were referred to in general terms: "...while we do not produce what internal demand requires, we need to continue the indispensable

imports.”¹¹¹ Neither grain nor flour were mentioned explicitly and the statement could be construed to refer to both or either. ADEPAN dipped its toes into that controversy that same month at the meeting to negotiate the price stabilization agreement, when it proposed a study to determine which one was more economical to import. But, even then, it had made no definitive statements (in writing anyway) on the issue. It would, in fact, be another year and a half before ADEPAN declared outright that INA should import only flour, rather than flour and grain.

Nevertheless, by September 1958, ADEPAN’s preference for imports of flour over grain was already apparent. Insistent reminders throughout July and August that Colombia was not self-sufficient in wheat laid the groundwork for Boals’ arguments about the harm of milling in wheat importing countries. Simply proposing a study of which was more economical to import, as ADEPAN’s representatives at the meeting on the Gentlemen’s Agreement had done, suggested that they already had an opinion on the subject. But in September, even as increasing scarcity and a growing sense of urgency took hold, ADEPAN recognized that it would be useless to fight the powerful interests representing the milling industry. The price of flour in Medellín and on the Atlantic Coast reached \$260 pesos for 112½ kilos, almost \$90 pesos more than the official price.¹¹² ADEPAN asked for immediate shipments of American flour and INA approved the request. This, however, was only a short-term solution to an immediate problem; in the long-term, the country faced the “unavoidable necessity for a rational flour import regimen in order to prevent the complete collapse of the bread-baking

¹¹¹ Ibid.

¹¹² “Importaciones de harina americana,” PC No. 11 (September 1958): 13.

industry.” But, with those powerful milling interests in mind, ADEPAN immediately added that, “naturally,” increased flour imports would be accompanied by a corresponding proportional increase in grain imports, so as not to cause disruptions or losses in the milling industry.¹¹³

Evident in this statement is ADEPAN’s recognition of the circumstances in the country at the time. José Gutiérrez Gómez, Colombia’s ambassador in Washington, was trying to negotiate a new PL 480 contract and it was unlikely, given the power of the milling interests, that it would dramatically decrease imports of grain in favor of increased imports of flour. At the same time, although they had been subtly and not-so-subtly attacking Colombian millers and their association for months, ADEPAN had also been simultaneously attempting to forge stronger ties with ASEMOL and work collaboratively with them on projects of mutual interest, such as campaigns to increase wheat consumption in the country. Thus, the new strategy of reiterating Colombia’s status as “non-self-sufficient” in wheat production, and discrediting milling industries in importing countries allowed ADEPAN to continue to make its arguments about the need for increased flour imports, without unnecessarily provoking ASEMOL and simultaneously working to forge greater cooperation between the two organizations.

It may have been a good strategy. The following month ADEPAN reported that the PL 480 contract had been re-negotiated and on quite favorable terms for Colombia. Approximately US \$7,400,000 worth of wheat and wheat products was to be imported to Colombia in 1959 – 64,000 tons of grain, and 25,000 tons of wheat products, including

¹¹³ Ibid.

flour for bread, pasta and cookies. Better yet, the stipulation that Colombia purchase 30% of that amount in dollars rather than pesos – put in place during the dark months of economic instability toward the end of the Rojas Pinilla regime in 1957 – was eliminated. Colombia could now purchase the entire amount in pesos, an enormous benefit that would help to preserve the country's foreign reserves.¹¹⁴ Moreover, aside from the improvements in the contract, the Colombian government announced an additional measure to help stabilize the milling and baking industries as well as the cost of living, and to promote the increased consumption of wheat products. The Ministry of Agriculture had agreed to reduce the price of the imported grain and flour for millers and bakers to such a level that it effectively cut the regular import tariffs in half.¹¹⁵

Clearly, this was a very welcome measure for Colombia's millers and bakers. The new contract was not without its negative effects, however, as ADEPAN acknowledged when it indicated that all the grain would be, as usual, purchased by INA, and released periodically, so as to avoid a glut on the market, which could harm both millers and wheat growers. Dr. Henry Hopp, the U.S. Agricultural Attaché in Colombia, also indicated that a great deal of care had gone into the negotiations, to ensure that the new

¹¹⁴ Of course, Colombia was also required to purchase an additional 40,000 tons at the market price in dollars. This was designed to ensure that normal commercial relations were not disrupted. It also reflects the ultimate purpose of the PL 480 program, which was not merely to "dump" surplus crops in any given year anywhere that people would buy them, but to forge long-term commercial ties between grain producers in the United States and buyers in "developing countries." The success of the program was, in fact, measured in the United States, by how much grain (and flour) had been sold through commercial channels, and if the program had contributed to an increase in those sales. See Joseph Rick Welsh, "PL 480 Title I and Market Development," Washington: USDA, Foreign Agriculture Service, FAS Staff Report No. 28, December 1992.

¹¹⁵ "Favorable modificación al acuerdo agrícola," *op.cit.* Interestingly, this contradicts the Eisenhower administration's records. According to the tenth semi-annual report, there was no PL 480 agreement signed between Colombia and the U.S. from July 1, 1958 to June 30, 1959. See "The Tenth Semi-Annual Report on Activities Carried out under Public Law 480, 83D Congress, As Amended, Outlining Operations under the Act during the Period January 1 through June 30, 1959," (Washington: House of Representatives, 86th Congress, 1st Session, Document No. 206, July 30, 1959), 43.

contract complemented Colombian wheat production instead of weakening it. Nevertheless, ADEPAN reported that the nation's press had "exhaustively examined" the terms of the new contract and "welcomed it without reservations," while the nation's economists had "all agreed" that the new contract would create new jobs in the milling and baking industries and "rapidly increase the supply of and demand for articles of primary necessity [such as bread]." ¹¹⁶

The renewal of the PL 480 contract reduced the sense of urgency and ushered in a new period of greater cooperation between ADEPAN and ASEMOL. Scarcity was still a problem of serious proportions – the same month that *El Panadero Colombiano* announced the contract, it also reported that ADEPAN had requested that INA immediately release "considerable quantities" of flour in Medellín, Cali, Ibagué, Girardot, Neiva, and "other important cities" so that the baking industry in those places would not become paralyzed. ¹¹⁷ Scarcity's cousin, speculation, also continued, but millers in general were no longer considered the culprits. Rather, it was a small subset of "rogue millers" causing all the problems:

...ADEPAN will always be opposed to any outbreak of speculation in the flour market, whatever its origin. But it will duly try to determine those

¹¹⁶ Ibid. That not everyone in the press so enthusiastically endorsed the new terms of the contract is clear from a short news item in the very same edition of *El Panadero Colombiano*, reporting that the agricultural minister, Espinosa Valderrama, had responded to negative statements about the PL 480 program which appeared in *Semana*, a major Colombian weekly news magazine. Espinosa Valderrama validated the importance of the program, insisting that the ministry was utilizing it "in harmony" with Colombia's needs. See, "Noticias breves," PC No. 12 (October 1958): 4. That Colombia's wheat growers were concerned about the renewal of this contract is also evident in a letter from Lewis M. Roberts, the Director of the Rockefeller Foundation's Colombian Agricultural Program to the Director of the foundation's Natural Sciences Division, James G. Harrar in September 1958. Lewis noted that Espinosa Valderrama was a lawyer-politician, who did not understand agriculture at all. Roberts expressed his concern for the program's future and indicated that he and everyone else associated with it was pessimistic about the prospects for agricultural development in Colombia with Espinosa Valderrama heading the Ministry. See RAC, RF, RG 1.2, S 311, Box 3, Folder 15, "Letter from Lewis M. Roberts to James G. Harrar, dated September 13, 1958."

¹¹⁷ "Noticias breves," PC No. 12 (October 1958): 4.

responsible, so that the leaders of the milling industry will not be misled by unscrupulous intermediaries who do not care about the collective good [of their industry].¹¹⁸

Identifying the sources of speculation and scarcity became, in fact, a major pillar of an agreement reached between ADEPAN and ASEMOL at the end of 1958. The agreement consisted of two major collaborative activities: promoting consumption of wheat products and combating speculation. Agreeing to work together to develop campaigns promoting wheat products was logical; while ASEMOL and ADEPAN may have disagreed on the source and solution to the flour shortage in Colombia, they could certainly agree that low demand affected both of their bottom lines equally. Describing the agreement as “transcendental,” ADEPAN hoped that their collaboration with ASEMOL would contribute to the nation’s economic development. They also expected that the Ministry of Agriculture, the SAC, and INA would wholeheartedly join ADEPAN and ASEMOL in their efforts.¹¹⁹

To a significant degree, ADEPAN’s new collaboration with ASEMOL was more symbolic than anything else. The previous year ADEPAN had already begun its own efforts to promote wheat consumption, and had enlisted a powerful collaborator from the start. Rather than focusing solely on bread, ADEPAN emphasized general good nutrition, discussing not only the importance of a balanced diet and the value of milk, eggs, nuts, fruits, vegetables, and grains, but also issues such as nutrition education in schools and homes, establishing regular mealtimes for children, the importance of

¹¹⁸ “Colaboración de Asemol,” *PC* No. 13-14 (November-December 1958): 22.

¹¹⁹ “La labor de ADEPAN en 1958,” *PC* No. 13-14 (November-December 1958): 18-19.

family meals, and the impact of nutrient-rich food on children's school performance.¹²⁰

The emphasis on general nutrition was codified in the establishment of a "Department of Nutrition" within the organization in late 1957. Although it focused primarily on nutrition education, the popularity of its pamphlets, newspaper articles, and radio and television programs surged after ADEPAN organized a charity drive in December 1957. While it might seem that it was in the spirit of the Christmas season that member bakeries donated bread to 500 working-class families in Bogotá, it was actually prompted by the desperate economic situation Colombia faced as a result of the continuing devaluations of the peso introduced by the military junta in power at the time. An editorial in *El Espectador* lamented the desperate situation in the country, describing how hunger had become ubiquitous not only in the homes of the city's poorest residents, but in middle class ones as well. Roundly praising the charity campaign, the editorial extolled the spirit of cooperation and selflessness among ADEPAN's member bakers as an excellent example of what was required of Colombia's business owners in general in order to overcome the country's economic and social malaise. Partially as a result of this good publicity, ADEPAN's bi-monthly Wednesday night television program grew so great in popularity that they proposed expanding it to a weekly format. Between the television program and the broadcasts on Radio

¹²⁰ See, for example: "Hoy tenemos que enseñar a los niños para que sean buenos clientes mañana," *PC* No. 4 (February 1958): 10; Lawrence Zeleny, "La ciencia cerealista y la nutrición humana," *PC* No. 9 (July 1958): 21-22; Ana Quintero, "Nutrición para niños," *PC* No. 8 (June 1958): 25-26; "Cocina de Ana Quintero," *PC* No. 9 (July 1958): 28-29; "Nutrición para niños, Serie IV," *PC* No. 10 (August 1958): 25-26; "Nutrición para niños, Serie VI, Necesidades Alimenticias de los Niños Escolares," *PC* No. 11 (September 1958): 25-26; "El mani y su valor en la alimentación," *PC* No. 15 (January 1958): 29-20.

Sutatenza, ADEPAN claimed to reach over 400,000 Colombians with information about good nutrition.¹²¹

The only four women who played a central role in ADEPAN were all connected in some way to the nutrition program. Carolina Gutiérrez was one of the association's two nutritionists. In early 1959, when the Lleras Camargo administration was preparing to send "equipos polivalentes" ("polyvalent teams") to rural areas affected by violence as part of the government's rehabilitation program, it hired ADEPAN, and Gutiérrez specifically, to conduct a short course on nutrition for the teams' members.¹²² Alina R. de Florén was a nutritionist for both ADEPAN and FEDEPAS, the pasta-makers association. *El Panadero Colombiano's* inaugural issue contained an article by de Florén on how to cook pasta and the following issue contained another on the history of bread. Most of her articles, in fact, mixed nutrition with history, often making associations between wheat consumption and Western civilization. In the first article on pasta, for example, she began by stating that it had long been the traditional food of the Italians and that Italy was the cradle of Western civilization. A more disturbing example is found in her article on how much bread Colombians consumed, when she asserted that "the history of the white races, in other words, the human races to which we belong, is founded on a diet that has bread at its core."¹²³

Ana Quintero was a well-known figure among Bogotá's homemakers. She had her own column in *El Espectador* focusing on nutrition, fine dining, and good hosting,

¹²¹ "La campaña de ADEPAN," *PC* No. 2 (December 1957): 18; "Noticias breves," *PC* No. 8 (June 1958): 4.

¹²² "Noticias breves," *PC* No. 16 (February 1959): 4.

¹²³ Alina R. de Florén, "Como cocinar las pastas alimenticias," *PC* No. 1 (November 1957): 12; de Florén, "¿Cuánto pan consume un colombiano?," *PC* No. 4 (February 1958): 14-18.

regularly appeared on ADEPAN's nutrition-focused television program, and wrote pamphlets with culinary tips and recipes that circulated in grocery stores and large bakeries throughout Bogotá. These free pamphlets were distributed twice a month and were "highly prized by Bogotá's ladies." In early 1959, plans were being made to broaden the distribution of the pamphlets to "other important cities throughout the country where there has traditionally been an interest in improving the family diet."¹²⁴ Quintero's articles and recipes were also regularly published or reprinted in *El Panadero Colombiano*.

The fourth woman connected to the association's nutrition efforts, for example, was neither Colombian, nor directly employed by ADEPAN. Joellene Vannoy was an "expert nutritionist" from the United States, with a Ph.D. and "vast experience" in the field. Although she directed ADEPAN's nutritional programs, she was actually employed by the Millers' Federation, and was one of its representatives in Colombia.¹²⁵ The impact of the federation on ADEPAN in general, and its nutrition program in particular, is simultaneously impossible to overstate and difficult to locate. On the one hand, ADEPAN itself plainly acknowledged the role of the federation on several occasions. Describing the "transcendence" and "significance" of the "efficient collaboration" of the Millers' Federation in September 1958, for example, ADEPAN extolled how its "invaluable technical assistance" had "materialized in intense and robust campaigns to increase the consumption of bread in the country, which greatly

¹²⁴ "Noticias breves," PC No. 15 (January 1959): 4; "El pueblo debe y puede alimentarse mejor," PC No. 16 (February 1959): 20.

¹²⁵ "Seminario de Nutrición," PC No. 11 (September 1958): 14; "Fomentemos el consumo de trigo," PC No. 12 (October 1958): 30; "Ilustres visitantes," PC No. 20 (December 1959): 21.

improves the nutritional level of the everyday diet.”¹²⁶ Financial assistance also appears to have supplemented the technical kind; ADEPAN’s year-end report in 1958 indicated that the support of the Millers’ Federation had enabled them to expand the distribution of free pamphlets and continue the television program.¹²⁷ Their cooperative work on nutrition education was so successful, it earned “great applause from the official sphere” and sparked new collaborations with the National Nutrition Institute, the Ministries of Public Health and Economic Development, and the Inter-American Cooperative Service on Public Health.¹²⁸ Evidence that the “official sphere” was indeed impressed by the collaborative nutrition program is evident from the hiring of Carolina Gutiérrez by the Ministry of Agriculture in January 1959; representatives from the Millers’ Federation were asked to come with her.¹²⁹ Moreover, Vannoy was not the only representative from the Millers’ Federation with some degree of oversight on ADEPAN’s nutrition program; in late 1957, Dr. Francis H. Thurber, also from the Federation, was the “General Director” of the Nutrition Program.¹³⁰

Direct statements highlighting the role and importance of the millers’ federation occupy relatively few of the pages of *El Panadero Colombiano*. However, partly due to the evocative use of words such “transcendent” to describe the assistance of the Millers’ Federation, those few direct statements raise questions about its influence on the content of other pages. This is where the role of the Millers’ Federation becomes

¹²⁶ “Una lucha sin tregua,” *PC* No. 11 (September 1958): 10-11.

¹²⁷ “La labor de Adepán en 1958,” *PC* No. 13-14 (November-December 1958): 18-19.

¹²⁸ *Ibid*; “Fomentemos el consumo de trigo,” *op.cit.*

¹²⁹ “Noticias breves,” (February 1959), *op. cit.*

¹³⁰ “Noticias breves,” *PC* No. 3 (January 1958): 27.

difficult to locate. Reprints from magazines around the world regularly appeared in *El Panadero*, for example. In itself, this is not particularly noteworthy; considering, however, the fact that almost all of the reprinted articles focusing in some way on nutrition came from U.S. sources, while reprints focusing on general baking industry issues such as hygiene, labor relations, or new baking techniques, came almost invariably from European ones, makes the issue of reprints noteworthy indeed and raises the question of the role of the Millers' Federation in the magazine's content. For example, an article on the need for better-trained workers in the rapidly modernizing baking industry was reprinted from the Spanish magazine, *Panadería y Molinería* (and to further complicate matters, appears to have been originally published in a French-language baking magazine).¹³¹ Another article from the same Spanish magazine discussed financial matters, arguing that every baker needed to pay himself a regular salary rather than messing up the bakery's finances by "borrowing" money from the till and filling the cash drawer with IOU's.¹³² Similar such articles were reprinted from *Il Panettiere* and *Le Patron Boulanger*.¹³³ In contrast, an article describing how to help children withstand the "calorie-counting" and "weight-reducing" obsessions of their mothers by teaching them good nutrition from an early age, and encouraging them to not be afraid to eat bread – which would ultimately ensure that they became reliable

¹³¹ "Nuestro pan de cada día como se hace," *PC* No. 1 (November 1957): 10-11.

¹³² "Todo industrial panadero debe asignarse un sueldo," *PC* No. 2 (December 1957).

¹³³ "El envejecimiento del pan," *PC* No. 1 (November 1957): 28, 30; "¿Lean los panaderos su periódico profesional?" *PC* No. 2 (December 1957): 22. See also: "Como hacer una clientela y preservarla," *PC* No. 1 (November 1958): 4; "Normas higiénicas que se han de observar en los trabajos de panadería," *PC* No. 5 (March 1958): 10.

bakery clients as adults – was reprinted from *El Panadero Latinoamericano*, a magazine based out of Houston, Texas.¹³⁴

A July 1958 article in *El Panadero Colombiano* did not indicate that it was a reprint. However, the author was Lawrence Zeleny, a Czech-American biochemist who specialized in cereal chemistry. Zeleny had developed a widely-used test for determining wheat sedimentation. Although Zeleny wrote confidently about wheat production and cereal consumption around the world, he did not seem to have any particular interest in Latin America and neither was there any indication that his article on the role of cereal science in improving human nutrition was written specifically for *El Panadero Colombiano*. Thus, it seems safe to conclude that it was reprinted from elsewhere, especially since much of the argument for enriching wheat flour with vitamins and minerals was based on the experience of various countries in Asia, which had reduced the incidence of beriberi through rice enriched with thiamine, niacin, and iron.¹³⁵

While Zeleny's article could seem to be a rather unremarkable discussion of vitamins and minerals in flour, several details suggest otherwise. Zeleny's portrait of global flour production and consumption consists of a populace in the United States consuming vitamin-enriched flours and experiencing a simultaneous decrease in the diseases or conditions associated with vitamin B or niacin deficiency contrasted with a populace in "other corners of the world" suffering from diseases that could be prevented if they ate more cereal products made from vitamin-enriched flour.

¹³⁴ "Hoy tenemos que enseñar a los niños para que sean buenos clientes mañana," *PC* No. 4 (February 1958): 10.

¹³⁵ Lawrence Zeleny, "La ciencia cerealista y la nutrición humana," *PC* No. 9 (July 1958): 21-22.

Certainly, such flours were available outside the United States; in Colombia, two associated mills - “Molinos Cundinamarca” and “Molinos La Concepción” - produced a brand of vitamin-enriched flour called “Vitaminarina” with the technical assistance of Hoffman-LaRoche Laboratories.¹³⁶ Never-the-less, considering the role of the Millers’ Federation in directing ADEPAN’s nutrition program, it seems likely that Zeleny’s article in *El Panadero Colombiano* was designed to strengthen the case for importing flour from the United States.

Malnutrition was certainly a serious problem in Colombia at the time.¹³⁷ And ADEPAN’s nutrition campaign did address that problem. But, the program was designed to increase consumption of bread in order to improve bakers’ bottom lines as much as the rates of malnutrition in the country.

¹³⁶ Advertisement for “Vitaminarina,” PC No. 1 (November 1957): 2.

¹³⁷ As a 1957 Planning Document indicated in a development plan for that year, “The average nutrition level remains low, close to 2,100 calories, with serious lack of healthy and vitamin-rich foods.” AGN, RP, Fondo Comité Nacional de Planeación, B 291, F 13, f 138.

CHAPTER 4

Wheat is King, Barley a Distinguished Young Lady: Improved Seeds, Import Substitution, and Self-Sufficiency

Raspa and Pocha were descendents of barley seeds brought to Colombia shortly after the Conquest. By the 1940s, they were the most commonly used “regional varieties” in the highlands of Colombia’s eastern cordillera – the high altitude plains in the departments of Cundinamarca and Boyacá. Until 1943, barley production in Colombia was a very small-scale agricultural industry; only about 6,000 tons were grown annually. Commercial production began that year, however, and by 1954, Colombia was producing 79,000 tons, an expansion achieved by increasing the land area under barley cultivation and using mechanized farming methods. Yet, despite such rapid expansion, it was still insufficient. To meet the commercial needs of brewing companies, the consumer demand for human and animal food products, and the requirements of seed multiplication entities, Colombia needed approximately 110,000 tons of barley each year.¹

Imports had been making up the 31,000 tons difference, but that strategy was becoming increasingly untenable. The dramatic drop in global coffee prices beginning in 1955 – one of the worst “coffee busts” in Colombian history – was wreaking havoc with the country’s foreign reserves, making it difficult for importers to acquire the

¹ Estebán Rico Mejía, “El cultivo de la cebada en Colombia,” *Almanaque Creditario* 13 (1956): 51-56. Conflicting numbers exist for barley production. According to one of these, Colombia produced 69,000 tons and required 100,000 tons, which, nevertheless, results in the same 31,000 tons deficit. See RAC, RF, 1.2, 311, Box 2, Folder 10, “En dos años Colombia no tendrá déficit de cebada,” *El Tiempo*, April 16, 1955. That Rico Mejía’s projections would be higher is unsurprising, considering his work with the Bavaria Beer Consortium on developing Colombian barley production, as will be discussed in a subsequent section.

materials they needed from foreign suppliers.² Colombia's contemporary economic policies also emphasized protectionism and substitution of imported goods and agricultural commodities. Industrialists, farmers, economists, and the general public referred to these policies by a term that reflected their ultimate goal: self-sufficiency. The Bavaria Beer Consortium was one of the commercial entities in Colombia most committed to this goal. As much as possible, it sought to purchase all the manufactured and agricultural raw materials it needed from Colombian suppliers. If such a supplier didn't exist, Bavaria created it.³ Thus, with national self-sufficiency at the core of its business model, finding a way to increase domestic barley production by at least 31,000 tons annually became one of Bavaria's major priorities.

In 1956, Estebán Rico Mejía, a Bavaria agronomist, outlined three possible methods: 1) expand the areas under cultivation; 2) modernize farming methods; and 3) improve the seed varieties. The first method was not viable, however; competition for land in the regions suitable for barley growing was too intense. As Rico Mejía warned, "it is impossible to predict how much [expanding barley fields] would impact the productive zones of other crops such as wheat, potatoes, and cold-climate corn, which have similar soil and weather requirements as barley."⁴

Rico Mejía's recognition of the complications involved in seeking to alter land use patterns in the highlands of the eastern cordillera hint at a major problem with the

² Kalmanovitz and López Enciso, *La agricultura colombiana*; Palacios, *Café en Colombia*; Saénz Rovner, *Colombia años 50*; Safford and Palacios, *Fragmented Land*.

³ Malterías Unidas (malt), Fenicia (glass bottles), Tapas y Envases (bottle caps), and Procebada (barley) are just a few of the companies or organizations founded by Bavaria to provide raw materials for beer making. See, "La tarea de Bavaria," *Negocios* 5 (March 1959): 365-370.

⁴ Estebán Rico Mejía, "El cultivo de la cebada en Colombia," *Almanaque Creditario*, Vol. 13 (1956): 51-56.

goal of self-sufficiency: in what exactly was the country to be self-sufficient? Resources were limited after all – there was only so much land available at the right altitude to grow barley, and that was precisely in the heart of the potato and wheat growing region, and imported inputs or tools such as fertilizers and tractors were still necessary, while the foreign reserves to purchase them were dwindling. While economists, planners, and government officials debated these questions, business leaders, farmers, and agronomists engaged in a variety of strategies to promote their particular point of view. They formed associations, lobbied the government, sought alliances with other actors, both national and foreign, and created their own programs to promote their vision of agricultural self-sufficiency. This was particularly so in the case of wheat and barley. Rico Mejía's suggestion that competition for land in the Colombian highlands presented a serious obstacle to increasing barley production only scratched the surface of the conflicts between promoters of these two different grains. Price policies, market stability, access to credit and technical assistance, strength of lobbying associations, and use of funds from the U.S. PL480 surplus crops program (which favored national barley production, to the detriment of wheat) all came into play. Wheat promoters worked hard to raise public awareness of these issues. Nevertheless, the national conversation often focused instead on the scientific factors related to wheat's appropriateness for cultivation in the tropics. In other words, economic issues were masked by scientific ones and this served to obscure the powerful economic interests working behind the scenes to influence the outcome of this conflict.⁵

⁵ That barley promoters succeeded in obscuring those interests is evident in contemporary studies of Colombian

This chapter will bring those issues to light. Four sections follow. The first describes the efforts by the Bavaria Beer Consortium to develop an improved barley variety and promote it among farmers in the 1950s. The latter efforts included guaranteed sales, stable prices, and credit assistance. The second section contrasts this with the much weaker wheat campaign organized by the Caja de Crédito Agrario, Industrial y Minero, the nation's largest farm credit agency. It outlines the more unstable market conditions wheat growers faced as they battled the nation's millers, who preferred imported grain over domestic. The third section describes the negotiations in the late 1950s among several of Colombia's largest manufacturing concerns (Bavaria among them), the Ministry of Agriculture, and the U.S. government to develop a Colombian fertilizer industry financed through loans derived from the importation of wheat under the P.L. 480 surplus crop program. The last section examines efforts by barley and wheat promoters to control national discourse about cereal production in Colombia. As barley began to overtake wheat in Colombia's highlands, barley promoters worked hard to downplay the effect of the favorable

economic history. In 2006, for example, Salomón Kalmanovitz and Enrique López Enciso, two of Colombia's most well-known economists, argued that protectionist policies stalled the country's economic development. Citing cereal grains as evidence, they argued that the protectionist measures cereal growers insisted upon in the 1950s and 1960s made wheat scarcer and more expensive. This was particularly unfortunate, they claimed, as those crops were "naturally" suited to more temperate climates, where cold winter temperatures kept pests and weeds under control, unlike Colombia, which needed heavy inputs of pesticides and herbicides to keep cereal grains healthy. The end result was that "the country ended up producing only a small part of the wheat it consumed, importing the rest." Several things are striking about these claims, beginning with the unlikely coincidence that they are precisely the same as those that one set of cereal promoters (barley growers) made about the other set (wheat growers) in the late 1950s. But, even more striking is the assertion that protection for a plant that was unsuitable for the country's climate led to low production and the need to import. As this chapter will show, quite the opposite was true. A host of economic pressures, that had nothing to do with protection, discouraged wheat growers from continuing to sow that cereal. Prices, market stability, lack of credit or technical assistance, and ultimately, a plan among Colombia's industrial producers of cigarettes, textiles, and beer to develop the nation's fertilizer industry through funding provided by the U.S. PL 480 food assistance program – contingent on acceptance of imported wheat – were far more important factors than climate in decimating Colombian wheat production. Thus, the assertion by Kalmanovitz and López demonstrate how effective the strategies to obscure those market issues in the 1950s were. See Kalmanovitz and López, *La agricultura colombiana*, 193.

market factors for barley growers, and claim instead that better scientific research enabled its growers to achieve such spectacular success. This placed Colombian and U.S. wheat breeders in an awkward position. As scientists affiliated with the Department of Agricultural Research and the Rockefeller Foundation, they firmly believed that science held the answer to social issues such as hunger and malnutrition. But, the efforts of the barley promoters forced them to publicly acknowledge the limits of science. In the process, they became the strongest proponents of market regulation, price supports, and other forms of technical and economic assistance for farmers.

Bavaria, DIA, New Seeds, and Market Intervention

Estebán Rico Mejía and José Antonio Sierra first met as students at the Faculty of Agronomy in Medellín in the mid 1940s. Both were born in 1924, the former in Abejorral in Antioquia, and the latter in Sogamoso in Boyacá. After graduating in 1947, Rico Mejía went to work for private agricultural interests and gained expertise in plant genetics. Sierra finished his studies in 1950 and immediately went to the United States for a Masters' degree at the University of Wisconsin. Fate reunited them in 1951 when both were hired by the Bavaria Consortium to develop an improved barley seed.⁶

Rico Mejía and Sierra began their work to develop a new variety with a common first step used by plant breeders around the world: collecting samples of and information about the country's existing varieties, some of which had been cultivated in Colombia since the colonial era. Months of traipsing through the barley fields of 40

⁶ "La multiplicación de la cebada y de los pesos; 91 millones cosechan dos agrónomos," *La nación agrícola: Una revista para agricultores y ganaderos progresistas* (July 1961): 7-11.

different farmers in Cundinamarca, Boyacá and Nariño, noting the differences in ears, leaves, stems, flowers, cuticles, and pollen revealed an enormous family: 89 types and 1,300 lines were discovered, of which 880 were eventually selected for experimentation and crossing. Samples from other countries were requested as well. Over 6,400 varieties arrived from the Cereals and Diseases Division of the U.S. Department of Agriculture, along with 90 from Ecuador, 50 from Brazil, and 15 each from Mexico and Argentina.⁷

The native varieties were planted at the “Francisco José de Caldas” experimental farm located near Bogotá. Careful observations of their yield, environmental reactions, and resistance to disease, among other things, led them to narrow the selection to 100 lines, which were then transferred to the experimental stations at Tibaitatá and Bonza. These were later crossed with some of the imported lines and 25 of the resultant crosses were selected for continued observation. At the same time as the varieties were carefully observed for their performance in the field, they were also tested in the laboratory for their malting and brewing capabilities.⁸

In these efforts, Rico Mejía and Sierra had the assistance of the plant breeders from the Rockefeller Foundation, who were in the country as part of the foundation’s Colombian Agriculture Program (CAP). Early in the campaign to find a new barley seed, Bavaria had enlisted the support of the Ministry of Agriculture, the Caja Agraria (a quasi-governmental credit agency), and the Rockefeller Foundation. The collaborative effort among these three agencies and the Bavaria Consortium that

⁷ “La multiplicación de la cebada,” *op. cit.*; “Cebada,” *RNA* 50, (June 1956): 40-42; RAC, RF, 1.2, 311, Box 2, Folder 10, “En dos años Colombia no tendrá déficit de cebada,” *El Tiempo*, April 16, 1955.

⁸ “La multiplicación de la cebada,” *op. cit.*

emerged in 1952 was eventually partially funded by a ten-cent tax imposed on every kilo of imported barley. Responsibility for managing the monies collected through the tax was handed to the Caja Agraria's "Revolving Development Fund." The Rockefeller Foundation assisted Rico Mejía and Sierra, monitoring the growth of the varieties and crosses, and keeping records about temperatures and soil conditions. And the Ministry of Agriculture was the official entity that housed the research program of the Rockefeller Foundation in Colombia. In addition to these permanent collaborators, the USDA's barley expert, Dr. G.A. Weibe, visited the Tibaitatá and Bonza experimental stations for three weeks in July 1953 to offer assistance and advice.⁹

Imposition of the ten-cent tax was not without controversy. Nowhere in Decree 0654 of March 3, 1954 is "Bavaria" mentioned. Only the Caja Agraria, Ministry of Agriculture, and the Rockefeller Foundation are indicated by name. Responsibility for "carrying out projects of technical and scientific research to obtain healthier, purer, and superior quality varieties" is attributed to "the State," albeit "carried on cooperatively by the Ministry of Agriculture and the Rockefeller Foundation."¹⁰ Noting that the climate and soil conditions in the cold-country regions of the nation were "propitious for growing barley at an industrial level," and that it was a crop required not only for the brewing industry but for food products that were also high in demand, the decree indicated that the tax would cover both the costs of the research at Tibaitatá and the Caja Agraria's campaign to promote barley cultivation in Cundinamarca, Boyacá, and

⁹ "En dos años," *op. cit.*; "Cebada," *op. cit.*; "La multiplicación de la cebada," *op. cit.* The author of "La multiplicación" claims that this was only a five-cent tax, but the decree itself clearly states that it was ten-cents.

¹⁰ RAC, RF, 1.2, 311, Box 2, Folder 9, Letter from LMR to JGH dated March 17, 1954. Translation in original.

Nariño. The decree stressed that this tax was in addition to regular import tariffs and applied to all importers.¹¹

Not all importers were pleased about this new tax, however. Lewis M. Roberts, CAP's director, worried that it had "created a considerable amount of ill feeling among the officials in the brewing companies."¹² It seems unlikely that the beer companies that were part of the Bavaria Consortium would have been terribly upset by this tax, however, since it was their idea in the first place and the monies generated were returned directly to their own industry. But not all beer companies were part of the consortium, and it was unclear that this tax would ultimately benefit those unaffiliated with Bavaria.¹³

Roberts' primary concern was the impact of having the Foundation mentioned by name in a decree instituting a new tax. His supervisor in New York, Jacob George Harrar, brushed aside his concerns, pragmatically observing that "decrees of this sort are never very popular with the people who have to pay the tax," and arguing that the additional funds generated by the tax might benefit the barley project. More importantly, in any case, was his the positive effect it would have on Colombian economic development. As he noted, the tax was necessary if Colombia hoped to achieve its import substitution goals:

...if the government believes that such a tax should be levied in an effort to improve barley production in Colombia, then obviously it is strictly a

¹¹ Ibid.

¹² Ibid.

¹³ Angel Vallejo, *100 años de Bavaria*. One such beer company was also one of the country's largest – Cervecería Unión, based in Medellín, Antioquia, which was also where the CAP was headquartered at the time, thus suggesting that Roberts would be more sensitive to Cervecería Unión's concerns about the tax.

governmental decision, and the importers will have to conform. In the long run, I think such a tax might be very helpful in making it possible for Colombia to become self-sufficient in the production of malting barley.¹⁴

Overall, however, this joint public-private barley improvement program was enthusiastically endorsed and with Sierra, Rico Mejía, the breeders of the Rockefeller Foundation, the Ministry of Agriculture, the Caja Agraria, Bavaria, and even a representative of the USDA all on board and working toward the development of a new and improved barley variety for Colombia, the dozens of lines and crosses swaying in the breezes blowing on the experimental fields of Tibaitatá and Bonza must have generated intense excitement and filled the hearts of those involved with great hope for a promising future for Colombian agriculture.

Nevertheless, it was almost by accident that a natural cross with most of the requisite commercial characteristics was discovered growing wild in the fields of José Maria Giraldo, a farmer on the Sabana de Bogotá. The local origins of FR-12-52, as it had been known, were honored by giving it a name in Chibcha, the language of an indigenous group in Colombia.¹⁵ Although it had some flaws, “Funza” was resistant to a variety of diseases and had higher yield than Raspa and Pocha. Farmers could expect

¹⁴ RAC, RF, 1.2, 311, Box 2, Folder 9, Letter from JGH to LMR dated March 30, 1954.

¹⁵ There is great irony in this name, considering the history of Bavaria and alcoholic beverages in Colombia. For centuries the alcoholic beverage of choice for many people of popular class extraction was *chicha*, made from fermented corn. Bavaria was established in 1889 and its product competed with *chicha* for the next four decades. Beginning in the 1930s, the newly formed Bavaria Consortium initiated an anti-*chicha* campaign. Unsurprisingly, its main goal was to increase beer consumption. But this goal was concealed in rhetoric about hygiene. *Chicha*, even into the 1930s, was generally produced in small batches by hand, and the home-made nature of production was painted as unhygienic by the campaign’s organizers. Racist imagery regarding the indigenous origin of the beverage accompanied the discourse of hygiene. For almost two decades Bavaria waged an anti-*chicha* campaign, which ultimately met with great success in 1949, when the national government prohibited its production. By the end of the 1950s, the most widely consumed alcoholic beverages in Colombia were *aguardiente* and beer, depending on the region. The association of hygiene with beer (and the corresponding lack of hygiene with *chicha*) was still evident at least as late as 1990, when, in an official history of the Bavaria Beer Company in celebration of the company’s 100th anniversary, the author wrote of how *chicha* was produced “without any controls” and was therefore unhygienic. See Angel Vallejo, *100 años de Bavaria*, 99.

to harvest 1,950 kilos per hectare rather than the 1,250 kilos with the other varieties. It also had a growing season of only 130 days, which was 15 to 30 days shorter than Raspa and Pocha. Given the country's climatic conditions, this ensured that barley farmers could have two harvests per year rather than just one. After further genetic tests, breeding experiments, and study of its characteristics, Funza was declared "pure" and several farmers, including Giraldo, were asked to multiply the seed. All of them had farms in wheat-growing *municipios* (municipalities) of Cundinamarca, such as Soacha, Bosa, Madrid, and Mosquera. Thirty-five tons were available for commercial release by the end of 1954. The following year, forty different farmers in Cundinamarca, Valle, Caldas, and Boyacá were recruited to increase the multiplication efforts, resulting in 800 tons of seed. With two harvests per year and an increased yield of 700 kilos per hectare, the Bavaria Consortium seemed to have engineered a fabulous import substitution success. Funza's increased yields promised that Colombia would soon cover its 31,000 tons deficit. Observers speculated that Colombia would be self-sufficient in barley by 1957.¹⁶

Indeed, Funza was rapidly adopted by highland farmers. While in 1954, Funza accounted for only 1% of the total barley produced in Colombia, by 1956 it accounted for 20%. A year later, half of the barley produced in Colombia was Funza. By 1960, that amount had practically doubled, to 95%. Over that same period of time, total production increased from 79,000 tons annually to 150,000. Profits also increased proportionally for Funza farmers. In 1955, farmers' average Raspa and Pocha yields of

¹⁶ "La multiplicación de la cebada," *op. cit.*; "En dos años," *op. cit.*; "El cultivo de la cebada," *op. cit.*; "Cebada," *op. cit.*; RAC, RF, 1.2, 311, Box 2, Folder 10, Juan Lamus Cáceres, "La tierra y el hombre," *El Tiempo*, April 16, 1955.

1,250 kilos per hectare earned approximately \$512 pesos. Only a year later, using Funza, that same hectare produced 2,442 kilos and earned \$1,002 pesos.¹⁷

Increased yields alone do not fully explain Funza's rapid acceptance, however, and the expanded production was based on much more than genetic "improvements." Bavaria recognized that many factors affected the adoption and success of Funza. Effective extension, easier access to credit, and market stability were all required if farmers were to take the risk of switching to the new barley seed. Technical assistance was crucial. While farmers certainly already knew how to cultivate and manage their fields, Bavaria wanted them to increase production and that required more than an improved seed. Rico Mejía estimated that even without the use of Funza, "production could be increased by 25% through the utilization of advanced practices on barley fields." But this could only be achieved, he asserted, through "intensive educational efforts" teaching farmers the agricultural practices necessary to increase yield.¹⁸ Proper use of harvesting machinery was high on the list. Inadequate attention to the harvesting techniques had resulted in significant losses in previous years. Soil management, pesticide application, irrigation, and drainage were also important. Extension agents providing the information barley farmers needed were essential under these circumstances. While the pool of trained extension agents in Colombia at the time was still small, their numbers were slowly growing, and Bavaria made good use of the few

¹⁷ "La multiplicación de la cebada," *op. cit.* Profits reflect gross receipts. Left unmentioned in the articles extolling the financial benefits of Funza for barley farmers is the higher cost of fertilizer and pesticide inputs these seeds required. Unless otherwise noted, "\$" denotes Colombian pesos.

¹⁸ "El cultivo de la cebada," *op. cit.* This is not to suggest that farmers did not already know how to cultivate and manage their fields, only that they needed to adopt new cultivation practices if they wished to increase their yields.

available. Hired by Bavaria, and working in conjunction with the Caja Agraria, agents fanned the countryside in the barley-growing regions, spreading information and providing demonstrations.

Training was important, but market stability also mattered. Farmers had to be certain that they could sell their harvests at a reasonable price. Unlike wheat, barley was not subject to price regulation by INA, and there were no intermediaries between growers and malting companies. To ensure that Funza farmers could sell their harvests, Bavaria intervened to provide a minimum level of protection. It promised farmers that it would purchase every last bushel of barley they produced – and kept its word, thereby ensuring market stability and encouraging more farmers to switch to barley production. Together with the RF, the Ministry of Agriculture and the Caja Agraria, Bavaria then implemented a comprehensive credit and extension program for new Funza farmers. This program provided them with all the technical and financial support they needed to successfully grow the new seeds. Combined with a guaranteed market, it was a persuasive campaign.¹⁹

Wheat's situation was quite distinct. The process of developing new wheat seed varieties was similar to that for barley. To some degree, the wheat campaign was even more successful, at least in the seed development stages. By its fourth year of operation (1953), the wheat breeders at the CAP had developed two different varieties that were appropriate for Colombia's wheat-growing areas. "Menkemen" had already been sent

¹⁹ RAC, RF, 1.2, 311, Box 2, Folder 10, Juan Lamus Cáceres, "La tierra y el hombre," *El Tiempo*, April 16, 1955.

over to the Caja Agraria for seed multiplication and distribution to farmers.²⁰ By 1954 over 1,000 tons of Menkemen had been planted in Cundinamarca and Boyacá. Meanwhile, “Bonza” was in development but was already considered superior to Menkemen: it was resistant to a rust fungus that plagued many varieties of wheat around the world (including Menkemen). Soon afterward, the Caja Agraria began multiplying it and planned to make it available to the public early in 1955.²¹ A year later, 113 tons of Bonza had been planted on 65 farms, and the RF expected that enough seed would be available by 1956 to plant approximately 13,500 hectares. In its 1954-55 report on the CAP, the RF made special mention of the Caja Agraria’s Revolving Fund, which was the entity within the Caja in charge of seed multiplication and distribution. The RF praised the “commendable speed” with which Bonza was being increased, and suggested that such efficiency and speed would minimize any danger to Colombia’s wheat output presented by Menkemen’s inadequate resistance to rust fungus.²²

Unfortunately for the CAP and those affiliated with it, things got off to a bad start in 1954. Bad luck befell farmers who tried Menkemen that year. Unexpected frosts killed the pollen and reduced yields “in some cases to zero” – resulting in a rash of bad publicity, which affected seed sales the following year.²³ Market instability compounded the problem. An influx of imported wheat played a role, as the Sociedad de Agricultores de Colombia (SAC) claimed in early 1955, when it pledged to support

²⁰ Menkemen’s name resulted from combining the names of the two principal seed varieties crossed to produce it – “Mentana,” a variety that had been developed originally in Mexico and transferred to Colombia in 1950, shortly after the CAP began, and “Kenya,” one of the varieties that had arrived from collections around the world and used for observation and crossing in Colombia.

²¹ RAC, RF, Agricultural Reports, CAP, Annual Reports, 1953-1954.

²² RAC, RF, Agricultural Reports, CAP, Annual Reports, 1954-1955, 59.

²³ RAC, RF, Agricultural Reports, CAP, Annual Reports, 1955-1956, 47.

the next growing season's wheat seed campaign, and thereby "prevent heavy [wheat] importations which can discourage farmers from sowing improved."²⁴

Market instability was not entirely random or unpredictable. The SAC's efforts to curtail imports attest to awareness that the domestic wheat market needed support. The RF and the Ministry of Agriculture also acknowledged this when they recognized that high yield and resistance to fungi and pests were not the only criteria determining a new hybrid seed's potential for success. Equally important was its market acceptability. As the RF noted,

...practically all wheat products are commercially processed before they reach the ultimate consumer. This means that an improved variety must meet the exacting requirements of processors – chiefly the millers and bakers – before it can pass the test of market acceptability.²⁵

Recognizing this, one of the first things that the RF did at the main experiment station was to establish a farinology laboratory staffed by Colombian chemists who conducted a variety of milling and baking tests on grain and flour. In 1954, this lab reported that, although the flour produced by Bonza and Menkemen was inferior to the flour produced by select varieties of North American wheat in some quality measures, such as color and protein content, it was equal or superior to those varieties in other measures, such as loaf volume.

Despite this, serious problems emerged once the new varieties were released on a large scale. Apparently, after the first successful harvest, rumors about its poor performance in the milling process spread quickly in the countryside. Pessimism

²⁴ RAC, RF, 1.2, 311, Box 2, Folder 10, "700 toneladas de trigo Bonza serán distribuidas este año," *El Tiempo*, January 9, 1955.

²⁵ RAC, RF, Ag Reports, CAP, 1953-54, *op. cit.*, 66-68.

increased as horror stories circulated of farmers' difficulties selling it. Many of them, arriving at millers with loads of grain produced by Menkemen seed, were told that it was a "horrible" variety and were forced to sell it at "ruinous" prices. The result was a serious setback in the Caja Agraria's wheat campaign promoting the improved varieties. Farmers around the country watched the debacle of falling prices and decided that they would "...return to growing 'Bola' wheat, the variety traditionally grown in Colombia."²⁶ Hard evidence of who was responsible for spreading these rumors was difficult to track down, but fingers were pointed at the millers themselves.²⁷

Juan Lamus Cáceres, in his "Earth and Man" column in *El Tiempo*, was particularly vehement in his condemnation, describing how the milling industry had essentially "tied farmers' hands," leaving them no choice but to sell at excessively low prices and accusing the millers of lacking patriotism:

...if these people's attitudes had been different, the agricultural nation, the wheat-growing nation would be optimistic and dedicated to duplicating [new varieties] and thereby creating a [sufficient] supply. But civic consciousness, a sense of honesty, and the concept of patriotism are attributes that few people have...Nobody wants to work collaboratively, nobody wants to search for practical methods of growth through cooperation and association. Very few think in terms of the nation.²⁸

Meanwhile, as Lamus Cáceres reminded his readers, improved varieties of barley had met with great success. He praised the "patriotism" of Bavaria, contrasted it with the lack of such sentiment on the part of the millers, and pointed out that because

²⁶ RAC, RF, 1.2, 311, Box 2, Folder 10, "Colaboración en la campaña triguera piden a los molineros," *El Tiempo*, April 16, 1955.

²⁷ RAC, RF, 1.2, 311, Box 2, Folder 10: "Colaboración en la campaña triguera piden a los molineros," *El Tiempo*, April 16, 1955; Juan Lamus Cáceres, "La tierra y el hombre," *El Tiempo*, April 16, 1955.

²⁸ RAC, RF, 1.2, 311, Box 2, Folder 10, Juan Lamus Cáceres, "La tierra y el hombre," *El Tiempo*, April 16, 1955.

of its initiative, the SAC had agreed to build malting factories, and thereby freed Colombia from reliance on “foreign markets” for almost every step in the beer-making process.²⁹

Dependence on foreign markets was clearly a vexing problem for Lamus Cáceres. Just two weeks later, in another “Earth and Man” column, he declared that “it was shameful that Colombia continued to import wheat, flour, and semolina [when scientists] such as [those] from the Rockefeller Foundation believe that we can produce here what we need to meet our needs.”³⁰ Millers were once again the targets of his wrath. He wrote that they spread the idea that self-sufficiency was not possible and that they did so not out of genuine concern for the welfare of the nation, but because they speculated with imported wheat in a number of ways. Worse still, he suggested that they had the means to “psychologically manipulate” wheat farmers and convince them that improved varieties were useless – an idea, according to Lamus Cáceres, that was contrary to the “national interest.” Citing studies demonstrating that national varieties of wheat produced the same quality bread as that produced by Canadian varieties, which was from where the majority of the annual “rivers of wheat and flour” came, Lamus Cáceres proposed two solutions to the twin problems of reliance on foreign imports and insufficient national production. The first was that the government needed to stop the spread of “vicious lies” about national wheat varieties that circulated during

²⁹ Ibid. At first glance, it is unclear why the SAC, an association of farmers, would suddenly decide to become industrialists and build a factory. When one considers, however, that many industrialists in Colombia had significant land holdings (and vice-versa), the line between “industrialist” and “farmer” becomes less clear and makes this proposal more understandable.

³⁰ RAC, RF, 1.2, 311, Box 2, Folder 10, Juan Lamus Cáceres, “La tierra y el hombre,” *El Tiempo*, April 29, 1955.

harvest time. The second was that millers needed to be compelled to contribute to extension and credit programs to assist wheat farmers, as it seemed unfair to him that the farmers should bear all the burden of experimenting with the new varieties on their own. Parallels with the collaborative Bavaria program are unmistakable.

Clearly, for Lamus Cáceres self sufficiency was a goal not only for commercial crops, but for alimentary ones as well. Although Caja Agraria figures for 1955 showed that more land was still dedicated to wheat production (92,565 hectares) than to barley (53,000 hectares), without comprehensive efforts to promote production, there was no guarantee that such a balance would continue in the future.³¹ Scientific and technological innovation mattered a great deal in preserving that balance, but extension, access to credit, and market stability mattered as well. The scientific work was increasingly standing on solid ground. Just a year after Lamus Cáceres lambasted the millers for their lack of patriotism, the news from the farinology lab at Tibaitatá was better than ever. Reporting on the results of tests of experimental and hybrid varieties from a variety of “yield trials, multiplication fields, and small plots,” which consisted of 667 milled wheats and 1,606 baked samples, the RF wrote that, “All of the wheats, with the exception of the check varieties Bola Picota and Menkemen, were of acceptable quality for bread.” True, they were on the low side of acceptability in some measures such as flour yield and test weight per hectoliter, but were acceptable none-the-less. On the other hand, “water absorption, mixing time, and loaf volume of the flours were

³¹ Departamento de Investigaciones Económicas, *Producción nacional en Colombia* (Bogotá: Caja de Crédito Agrario, Industrial, y Minero, 1955).

good to excellent.”³² In the future, the success of programs designed to increase wheat production would lie not in the lab, but in the extension agent’s ability to work well with farmers, with the Caja Agraria’s (and other agencies) willingness to extend credit, and the national government’s efforts to nurture the crop both through protective trade policies and price stabilization. How committed were Colombia’s wheat promoters to providing or ensuring the availability of this entire package? What steps were they willing to take to defend alimentary self-sufficiency? The next two sections examine these issues and questions, showing how problems providing credit and extension and protecting the market demonstrate the direction in which the nation was heading – toward an ISA policy, for *tierra fria* at least, focused on commercial crops.

Prices, Procebada, INA, and SAC

In April 1957, Pedro Bernal E., the president of SAC, grew tired of national economic policies that favored urban residents and consumers over the nation’s farmers. He expressed his frustration in a letter to Luis Bernal, the manager of INA. At the time, the price of harvested grain was set by INA, in an attempt to keep the cost of flour and bread within the means of the poorest of Colombian consumers.³³ This was particularly important in the midst of the peso devaluations, dwindling foreign

³² RAC, RF Agricultural Reports, CAP, Annual Report 1956-57, 42, 49.

³³ INA managed a wide variety of market segments, controlling the amounts of grain and flour that could be imported, and where they would be distributed, as well as ensuring that milling companies purchased national grain, as they were obligated to do in order to receive import licenses for North American grain. In a brief overview of INA’s role in managing the wheat market, Machado discusses how wheat growers protested the INA’s protectionist policies in the late 1940s, mainly because the domestic price was set far below the price on the international market owing to the fact that post-war demand had increased but production had not. In the long run, however, those policies greatly benefited wheat producers. See Machado Cartagena, *Políticas agrarias en Colombia*, 101-103.

reserves, and general economic instability that came with the beginning of the coffee bust. Keeping the cost-of-living in check was primordial for Rojas Pinilla and the Junta Militar that replaced him. For that reason, INA had not changed wheat's sale price for several years, despite rising production costs.³⁴ Nevertheless, although the price was set at \$1.20 pesos "el punto," during times of periodic scarcity, such as the weeks before harvest, the price often rose to \$1.40 pesos.³⁵ This convinced wheat growers that the market could bear a higher price, and thus, the SAC wrote to Luis Bernal in April 1957, asking that INA raise the official price to \$1.30 pesos *el punto*.³⁶

Raising the official price was not the SAC's only request, however. It also asked that the price be raised one cent each month for the five months following the October harvest. In addition, Bernal E. requested that a study be conducted in conjunction with the Caja Agraria, to develop a financing system that enabled large-scale wheat producers to build and maintain adequate storage facilities on their properties. All three of these requests were designed to work hand-in-hand to stabilize the wheat market, ensure affordability for consumers and guarantee that farmers received enough of a profit that they had incentive to continue producing wheat, rather than switching to another crop with a higher profit margin.³⁷

³⁴ Rojas Pinilla had increased the minimum wage, which raised labor costs, while essential machinery, repair parts, and fertilizer were all imported and their prices had all increased between 50-100%.

³⁵ AGN, Presidencia de la República, RP, Secretaría General, Sociedades/Memorandum, Box 294, Folder 63, f4-8 (undated memo from the SAC to the Agriculture Minister). "El punto" referred to the weight of a certain volume of grain. One hectoliter (equivalent to 100 liters) was weighed and the resulting number was used to determine the wheat's "point" on the price scale.

³⁶ "Defensa de la producción nacional: Precios mínimos sobre trigo," *RNA* 51 (April 1957): 10-11.

³⁷ *Ibid.*

Bernal E. carefully explained why such measures were necessary. Before the widespread use of combines, harvested wheat sat on farmers' fields for several months, slowing drying. Every so often, the farmer threshed some and released it to the market. Demand was thus consistently satisfied and prices remained constant. Moreover, farmers had no need of storage facilities. The situation changed with the introduction of combines and drying systems. Threshed wheat had to be sold immediately so that it could be sent to the dryers as quickly as possible; farmers who used combines threshed as they harvested, which meant that they all had to take their wheat to the market at the same time. Massive glut resulted, leading to precipitous price declines. Thus, Bernal E. proposed the gradual increase in price over five months and the provision of credit for constructing dryers and silos. If farmers who produced significant quantities of wheat had their own dryers and storage facilities, then the market would return to its former stability – farmers could release their harvested grain gradually, avoiding glut and associated price decreases. Likewise, increasing the price by one cent per month for five months after harvest would provide further incentive for farmers to resist releasing all of their wheat at once.³⁸

With the fall of the Rojas Pinilla regime the following month, this proposal was lost in the shuffle. Meanwhile, millers' refusal to accept national flour continued unabated, for example. In an undated 1957 memo to the Minister of Agriculture, the SAC reiterated Bernal E.'s request that INA raise the price of wheat and then also asked that the government require millers to produce flours made from a mixture of national

³⁸ Ibid.

and imported flours and that the “obligatory absorption of the entirety of the national harvest” be imposed as well. As it was, millers were required to show evidence that they had purchased national wheat before they could receive the licenses required to import North American wheat. This did not mean that every farmer was able to sell his complete harvest, however. Requiring “total absorption” would certainly remedy that situation. Echoing the 1954 barley tax, the SAC also asked for the establishment of price supports that would level the playing field between the cheaper imported wheat and more expensive national wheat.³⁹

Prices continued to be a serious concern for the SAC throughout 1957. In October, Bernal E. sent a letter to the Junta Militar voicing the SAC’s concerns about the decline of agriculture in general. Bernal asked that the letter’s contents not be made public, to prevent “interested parties [from] impeding the country’s return to normalcy.” He listed seven reasons for the growing “decadence” of Colombian agriculture. Second on the list were prices. Using wheat as an example, Bernal commended INA for raising the sale price of wheat that year from \$90.00 pesos for 75 “puntos” (kilos per hectoliter) to \$105.00, an increase of 16.6%. As helpful as that was, however, Bernal complained that agricultural production costs had gone up 43.3%. With that situation in mind, Bernal asked: “Can anyone justifiably imagine that there is any enticement that will keep a wheat farmer sowing this cereal?”⁴⁰

³⁹ AGN, Presidencia de la República, RP, Secretaría General, Sociedades/Memorandum, Box 294, Folder 63, f4-8 (undated memo from the SAC to the Agriculture Minister).

⁴⁰ AGN, Presidencia de la República, RP, Junta Militar de Gobierno, Situación del País/Sociedades, 1957, Box 4, Folder 85, f3-8.

Bernal acknowledged that the government had legitimate concerns about the cost of living. He denied, however, that food was a special category that should be singled out for more onerous price regulations than other items. Clothing, transportation, medicine, education, “even entertainment” – all of these items factored into rising living costs for Colombians. Indeed, as Bernal complained, schools along with “producers of clothing, drugs, beer [and] cigarettes...ask for price increases considerably higher than those asked for by farmers. These increases are authorized and farmers, who constitute 70% of the country’s population, have to pay them.”⁴¹

The issue then, for Bernal, was one of fairness. He wondered if a “terrible injustice” was committed against farmers when they were prohibited from adjusting their prices the same way that manufacturers could or when the state made “frequent inopportune importations of products that compete with them, in order to lower ‘living costs.’” To make the situation’s unfairness more plainly evident, Bernal turned the situation around and asked why Colombia didn’t import the clothing that farmers needed when nationally produced textiles became too expensive for them to buy. Despite what Bernal saw as obvious unfairness, it was injustice suffered in silence – a silence with serious national ramifications, he warned. Farmers thought about all these issues, he claimed, but rather than “express themselves in noisy public protests to get authorities’ attention, as city residents are apt to do every time it seems necessary, they take more cautious measures to save themselves and their interests.” In other words, they either left their farms or took up cattle ranching, a more profitable and less

⁴¹ Ibid.

complicated enterprise. Bernal worried about the long-term, large-scale effect on the nation if abandonment of the countryside continued unabated. “Who will grow food?” he asked.⁴²

Bernal’s letter to the Junta Militar outlining the SAC’s position on the state of Colombian agriculture at that crucial moment in the nation’s history came at a time when its power to influence the national government was seriously threatened by the growing number of single-crop focused associations. Kalmanovitz and López argue that the SAC was already weakened in 1927 when the economic and political influence of small-scale coffee growers in western Colombia eclipsed that of large-scale growers in the eastern part, manifesting itself in the establishment of the National Coffee Growers’ Federation (FEDECAFE).⁴³ The migration of the center of coffee power from east to west in Colombia has been well documented.⁴⁴ Radical curtailing of the SAC’s influence as a result is somewhat overstated, however. While FEDECAFE indeed came to wield a tremendous amount of economic and political power in Colombia, the SAC’s membership consisted of more than just large coffee hacienda owners in Colombia’s eastern highlands. Large-scale sugar cane, tobacco, cotton, and rice growers were also members, and their influence grew throughout the 1930s and into the 1940s, as import substitution policies spurred by the Depression and World War II provided incentive for them to increase production. In the late 1940s and into the 1950s, the SAC competed

⁴² Ibid.

⁴³ Kalmanovitz and López, *La agricultura en Colombia*, 77.

⁴⁴ Christie, *Oligarcas, campesinos y política*; Palacios, *Café en Colombia*; Parsons, *Antioqueño Colonization*. Although Christie and Parsons deal more explicitly with political questions regarding the nature of colonization (mainly the degree to which it was a democratizing phenomenon in Colombia), they both embed this question within the context of the growth of small-scale coffee production in western Colombia.

with the industrialists' association established in 1944 (ANDI) over protective tariffs, but the SAC's large-scale growers were still a powerful voice on the national stage. The stronger challenge to the SAC came in the 1950s, when members, supported by their industrial consumers, began to establish their own specialized associations. Examples include the Federación Nacional de Arroceros (National Rice Growers Federation), the Federación Nacional de Algodoneros (National Cotton Growers Federation), and the Asociación de Cultivadores de Caña de Azúcar de Colombia (Association of Colombian Sugar Cane Growers), established in 1947, 1953, and 1959, respectively. Bejarano notes how this limited the advocacy role for the SAC and increased conflict among the various associations, as the SAC was no longer the glue that enabled farmers to speak with one powerfully united voice over issues of immediate concern. Instead, it was reduced to advocating for general agricultural policy, such as taxes on land holdings and property rights.⁴⁵

The circumstances that drove formerly united members of one organization to split apart simultaneously brought some former competitors closer together. Opposition to the 1954 barley tax had greatly diminished by 1957. Booming barley production had apparently convinced the beer companies outside of the Bavaria Consortium that achieving self-sufficiency in barley (and paying additional taxes to do so) was a good idea. Bavaria and the four major beer companies not part of its consortium – Andina, Barranquilla, Unión, and Clausen – united in October 1957 to form the Asociación para el Fomento del Cultivo de la Cebada (Procebada – Barley

⁴⁵ Bejarano, *Economía y poder*.

Cultivation Development Association). Ensuring a steady supply of improved barley seeds was Procebada's primary purpose. Barley farmers increasingly required technical assistance (even if they were not new to the crop, the new seeds required different care than the older "regional" varieties) and Procebada's organizers made that an integral part of its mission as well. Immediately after its establishment, Procebada signed a contract with the Ministry of Agriculture and the Caja Agraria, transferring both the responsibility for multiplying seeds and providing technical assistance, and the right to the funds collected through the barley tax to the new organization. Each one of the beer companies involved also agreed to provide financial support.⁴⁶

Procebada quickly became the model for achieving self-sufficiency in agricultural production. Only one year after it had been established, it was roundly praised in a FAO-sponsored assessment of Colombian agriculture, claiming that it had provided "magnificent results for the development of barley production."⁴⁷

What were "magnificent results" for barley producers and consumers, however, were problematic ones for wheat growers and promoters. The better things became for barley, the worse they seemed to become for wheat. A variety of resources were diverted from one to the other, including land, technical support, and credit. Eventually, even the pesos that had been paid to purchase PL480 grain from the United States returned to Colombia in a form that had dire consequences for the nation's wheat growers. The following section examines the mounting pressure on wheat producers

⁴⁶ "La multiplicación de la cebada," *op. cit.*

⁴⁷ AGN, Presidencia de la República, Rojas Pinilla, Secretaría General, Informe sobre el desarrollo agropecuario de Colombia, Box 298, Folder 35, f 1-84: 48.

and the way that the definition of self-sufficiency was quickly becoming defined in terms of only one type of agricultural production.

Fertilizer and the National Front

During his inaugural speech on August 7, 1958, president Alberto Lleras Camargo put the nation's industrialists on notice. The country had complicated economic problems and everyone needed to make sacrifices to solve them. Middle class and popular sectors had already seen their quality of life decline, as protectionist measures designed to help the nation industrialize hurt their pocketbooks in several ways. Lleras Camargo reiterated his belief that industrialization was a laudable national goal. But, industrialists needed to show stronger commitment to the nation and less to their bottom lines, he declared. There were several ways that they could do so: "price stability, profit reduction, reinvestment designed to diminish demand for imported raw materials, salary increases." That is what the people want, he declared, to see "that industry begins to reciprocate the gigantic effort the Nation has done to create and sustain it."⁴⁸ Despite Lleras Camargo's strong ties to industrial leaders, the social and economic pressures in the country were volatile enough that he had very little choice but to make such a strong call for industry to sacrifice some of its profits during those "critical times."⁴⁹

Unbeknownst to the public, decreasing the use of imported raw materials had been at the center of several months of negotiations among industrialists, Jorge Mejía

⁴⁸ Lleras Camargo, *El primer gobierno*, 53-77.

⁴⁹ Sáenz Rovner, *Colombia, años 50*, 238-239.

Salazar (the Minister of Agriculture), the Caja Agraria, FEDECAFE, and the Empresa Colombiana de Petróleos (Ecopetrol). They had been developing an expansion plan for the Industria Colombiana de Fertilizantes (Colombian Fertilizer Industry). The purpose was to increase national fertilizer and pesticide production in order to increase the amount of nationally produced agricultural raw materials.⁵⁰ Unfortunately, few of the funds for this laudable goal would come from their own bottom lines. Instead, Colombians in general, and wheat farmers in particular, would ultimately bear the cost.

The Industria Colombiana de Fertilizantes was incorporated in 1952. Original subscribers included the Caja Agraria, FEDECAFE, and Ecopetrol; they each pledged to capitalize the firm with \$20,000,000 pesos. By 1958, only half of that amount had actually been paid, the bulk of it (\$8,100,000) from the Caja Agraria. Early on, Fertilizantes contracted with Montecantini, an Italian engineering firm, to oversee construction and provide technical assistance. Choosing a site near Barrancabermeja, they determined that it would be able to produce 50 tons of synthetic ammonia, 150 tons of nitric acid, 100 tons of ammonium nitrate, and 30 tons of urea on a daily basis, as well as 14,000 tons of nitrogen annually, which they believed was enough to meet the total needs of the country's agricultural industries until 1961.⁵¹ To produce the nitrogen fertilizers, they planned to rely on the natural gas available in the Casabe and El Centro fields in the Magdalena River Valley. Phosphate and potassium, on the other hand,

⁵⁰ AGN, Pres. de la República, Rojas Pinilla, Secretaría General, Industrias/Comunicaciones, Box 29, Folder 16, f 5-17.

⁵¹ It was expected that by that time, demand would have grown and Fertilizantes' production would need to expand.

would have to be imported until phosphorous rock deposits were discovered in the country.⁵²

Adding up the cost of equipment and construction, the total amount required to start the company was originally estimated at \$28,000,000 pesos. By 1958, however, it had become clear that the actual start-up costs far exceeded that amount. At that time, Fertilizantes, the Caja Agraria, FEDECAFE, and Ecopetrol were negotiating how to convert the public company into a private one. Studies conducted in relation to this conversion estimated that it would actually cost \$137,000,000 to build the plant and begin operations.⁵³ This astronomical price increase persuaded the various parties involved that converting Fertilizantes into a private concern was the only viable means of making it operational. Government monies were far too sparse for it to continue as a semi-public venture.⁵⁴

For that, Mejía initiated a lengthy series of discussions with public and private entities in order to develop a financial plan. It was apparently a difficult process. In his memo about this to the new Minister of Agriculture, Dr. Augusto Espinosa Valderrama, he seemed concerned with making it clear that he had labored very hard over the deal

⁵² Ibid.

⁵³ This quintupling was due as much to the recent peso devaluations as it was to adjusted cost estimates.

⁵⁴ Ibid. Providing statistics on how much demand for fertilizers had increased – from 15,927 metric tons in 1950 to 130,296 metric tons in 1957 – Mejía Salazar, in his memo about this to the new Minister of Agriculture in August 1958, speculated that “those who are today involved in this business [of importing fertilizers] are not fans of the Industria de Fertilizantes and strongly criticize it.” Considering that the production of nitrogen-based fertilizers in Barrancabermeja was viewed as only the first step in the development of the nation’s petro-chemical industry, it is likely that the criticisms would grow even stronger in the future. Elements of the expansion plan included duplicating the original plant, production of nitroglycerin, polyethylene, plastics, caustic soda mixtures, chlorine, and pesticides, as well as construction of a sulfuric acid plant on the Atlantic Coast. Mejía noted in his memo that “Each one of these phases of chemical production will in turn create other by-products that will allow us to continue production of new chemical products almost indefinitely. This is one of the most important sources of import substitution in the country’s future development.” Of course, this pie-in-the-sky expansion of Fertilizantes depended on first being able to secure the \$137,000 pesos it needed to get off the ground in the first place.

that was in the works: “The process was long and if the formula adopted seems at first glance to be simple, it was only arrived at after repeated conversations with diverse national private groups and taking all possible factors into account.”⁵⁵

The new financial plan relieved the Caja Agraria, FEDECAFE, and Ecopetrol from paying their remaining subscription obligations. Mejía noted that none of them had the quantities of cash available for continued investments at the level Fertilizantes required, nor did it fall within their missions to subscribe to private companies in such a way.⁵⁶ Taking their place was a \$12,000,000 peso loan from the PL480 fund generated through the purchase of surplus crops from the United States. The loan was designed to enable Fertilizantes to continue construction of the plant while the complete financial plan was developed. Once that initial loan had been secured, numerous private companies were invited to become subscribers. The response was enthusiastic. Most of the companies asked agreed that Fertilizantes was a good idea and would greatly benefit them. Enthusiasm didn’t immediately translate into investment agreements, however. With the country’s unstable financial situation, credit was limited and they had little capital to spare. As it was, they were struggling to stay afloat, trying to meet their own obligations.⁵⁷

Their involvement was essential, however. The previous year, Fertilizantes had approached the Export-Import Bank, seeking a US \$7,500,000 loan. Despite the solidity of the construction and development plans, the Ex-Im Bank denied the loan because

⁵⁵ Ibid.

⁵⁶ As he indicated, “it is unjustified to expect that these entities, created for other objectives, [should] divert their resources to promote industries belonging to the private sector.” Ibid.

⁵⁷ Ibid.

Fertilizantes was a public company. Attracting financing would be easier if Fertilizantes converted to a private concern, and it thus needed to secure the commitment of Colombia's industries in the form of shares of stock. Conveniently, the PL480 agreement stipulated that 30% of the peso funds generated by the sale of surplus crops in Colombia be returned to the country in the form of loans to individual companies. Mejía Salazar and Fertilizantes negotiated with the U.S. Point IV representative in Colombia, whose approval was required for any disbursement of PL480 funds, and together they devised an ingenious solution that killed two birds with one stone – provided Fertilizantes with the capital it needed from corporate investors and met U.S. government requirements regarding PL480 funds. Up to \$24,000,000 in fifteen-year term loans from the PL480 funds would be given to various companies interested in investing in Fertilizantes. The loan monies could only be used to purchase shares of stock in the new company. By August 1958, when Mejía Salazar wrote the memo to Espinosa Valderrama, the incoming Minister of Agriculture, Fertilizantes had received requests for these loans from twenty-one private companies totaling more than \$26,000,000.⁵⁸

Of the four companies who wished to purchase the largest amount of shares (\$3,000,000 each), two were beer concerns – the Bavaria Consortium and Cervecerías Barranquilla y Bolívar, S.A. The other two were the Compañía Colombiana de Tabaco and the Compañía Colombiana de Seguros, a cigarette and an insurance company. Other well-known firms interested in purchasing shares were Cervecería Unión,

⁵⁸ Ibid.

Coltejer, Cementos Argos, and Suramericana de Seguros. In addition to Coltejer, several smaller textile firms had expressed interest. The same was true for cement companies. Amounts requested ranged from \$3,000,000 to \$300,000, with almost half of them over \$1,000,000. Mejía Salazar did not indicate the criteria that determined who would receive the long-term loans (and their amounts) from the PL 480 funds.⁵⁹

Even without the disbursement agreement fully completed, enough progress had been made that Mejía Salazar and Fertilizantes approached the U.S. Development Loan Fund. Inquiring about the possibility of requesting the same US \$7,500,000 that had previously been asked of the Ex-Im Bank, the response the second time around was far more positive. The steps taken toward conversion into a private company, and the support of so many of the nation's largest industrial firms had inspired confidence on the part of US loan officers. At that time, as the first National Front administration of Lleras Camargo loomed on the horizon, and Mejía Salazar was preparing to leave the Minister of Agriculture post, plans were in the works to make a formal request to the Development Loan Fund. In his memo to Espinosa Valderrama, Mejía Salazar expressed his great certainty that the loan would be approved. Moreover, if construction could keep on schedule, Fertilizantes would be able to bring nitrogen fertilizers to the market within a year.⁶⁰

⁵⁹ Ibid.

⁶⁰ Ibid. The outgoing Minister of Agriculture seemed deeply worried that the project of converting Fertilizantes into a private company would be discontinued once he left. After outlining the new financial plan and the work that had gone into creating it, he speculated on what would happen if Fertilizantes continued as a public company. "How would it be financed?" he asked. And assuming that all of the financing outlined in the new plan could still come through even if it remained a public company, he wondered, "is it justified to ask the nation or the departments to contract new debt on top of the already heavy load of internal and external public debt? And even if it could be financed as a public company, what other State activities will have their funds cut in exchange?" For Mejía Salazar, it

Two inter-related points rise from this early history of the Industria Colombiana de Fertilizantes. The first is the narrowing definition of self-sufficiency. As distinct as the companies interested in investing in Colombia's fertilizer industry were, they all shared one significant thing in common – none of them manufactured food products. Second, PL480 funding of Fertilizantes would mean increased use of imported wheat. The vast majority of surplus crops available for sale through the PL480 program consisted of wheat and vegetable oils, although the former far exceeded the latter. The loans were based on agreements that had already been signed for the shipment of grain over the subsequent years. And, if Fertilizantes hoped to continue expanding, as Mejía Salazar had indicated in his memo, further PL480 loans would likely be required, which would mean additional PL480 agreements and a further influx of grain from the United States. Thus, in order to develop Colombia's petro-chemical industry, and thereby increase agricultural production, US wheat would have to circulate in large amounts throughout the country. The problems that Colombia's wheat producers and promoters confronted would thus continue unabated. As long as US wheat was readily available, Colombia's millers had no incentive to use national wheat that was more expensive to produce and transport.

made no sense for his successor to either maintain Fertilizantes as a public company or to reject the financial plans already in place. As he noted in his final paragraphs, most of the groundwork had already been laid – just a few steps remained: securing government approval, disbursing PL480 loans, and requesting the US \$7,500,000 loan. It seemed senseless to start over. Mejía Salazar recognized, however, the politics involved in ministerial changes. Even within the same presidential administration, a change in ministers often meant that the predecessors' programs were scrapped. His final words were cautionary, aware that his efforts may have been futile: "If the [new] government, nevertheless, does not agree with the program and the direction of this [fertilizer] industry, it will be necessary to suspend construction in Barranca as soon as possible, since there are no longer any funds to continue it as a public company. See *Ibid.*, 13 & 16.

The contours of these two points were already evident in the case of barley and wheat in Colombia. Over the next few years, the disparities between these two crops would intensify. Barley, as an industrial raw material, would continue to receive a variety of governmental and corporate support, while wheat would increasingly struggle to survive.

Sadly, the Ministry of Agriculture inspired little confidence in its ability or willingness to protect wheat. The problems of wheat producers were usually market-related rather than technical. Yet, the Ministry ignored the market problems, and, in fact, actively sought confirmation that technical issues were to blame. That October, the U.N.'s Food and Agriculture Organization (FAO) released a study of Colombia's agriculture that the Ministry had commissioned in 1955. Dr. Maurice Amiot, the study's director, spent three and a half years in Colombia reviewing all aspects of its agricultural sector. Collaborators included the SAC, FEDECAFE, the Instituto de Fomento Algodonero (IFA – the Cotton Development Institute), and the Federación Nacional de Arroceros (Rice Growers' Federation). The provisional report was released in October 1958. Although it mainly focused on technical issues, it is interesting to note how market issues affected their assessment of the technical ones.

Wheat production, for example, was considered deficient. The problem was defined as technical. Farmers apparently planted wheat wherever they wanted without regard to soil conditions. This practice needed to be curtailed if production was to increase: "the development of wheat cultivation in Colombia cannot be left to the arbitrary decision of farmers. Currently, wheat is sometimes cultivated in a correct

environment, but it is also cultivated in inappropriate places, and in inappropriate ways.” Dr. Amiot’s solution to this problem was bureaucratic and technical. He proposed that the Ministry of Agriculture commission a study to determine the most effective regions for growing wheat throughout the country and the varieties most apt for them. Afterward, credit should only be extended to farmers who grew wheat in the areas approved by the Ministry for that purpose, using the seeds it had designated for that specific place.⁶¹

The FAO had no recommendations for barley production, on the other hand. Procebada, by then in operation for almost a year, had generated such “magnificent results” that no improvements were required. In a 78-page report, the author dedicated only two paragraphs to barley, indicating that he mentioned it only to offer an example of a successful model of public-private partnership. Interestingly, however, the report’s author seemed either unaware or unconcerned with the tremendous contradiction in his assessment of why barley succeeded while wheat lagged. When he discussed barley’s success, Dr. Amiot wrote of the power of an association of “users of an agricultural product” – in other words, in this case, its industrial consumers who had the ability to manipulate the market in such a way that both they and the commodity’s producers benefited. Discussing wheat, on the other hand, he made no mention of market issues or the products’ consumers. Blame for wheat’s failure to take off lay with its producers

⁶¹ AGN, Presidencia de la República, Rojas Pinilla, Secretaria General, Informe, Box 298, Folder 35, f 50.

and their lack of attention to technical issues, not with lack of support from its end users.⁶²

It seems more than coincidental that a report with such a contradictory view of these two agricultural products would be released around the same time that many of Colombia's most important industries were negotiating with the Ministry of Agriculture over the financial restructuring of Fertilizantes. Remember that Dr. Amiot's main collaborators consisted of some of the associations dedicated to promoting crops such as cotton, coffee, and rice, and barley. Several of the corporate supporters of two of these associations (Procebada and IFA) were also waiting for approval of a PL480 loan to purchase shares in Fertilizantes. Thus, their interests ultimately conflicted with those of Colombia's wheat growers. Without the PL480 loans, Fertilizantes could not get started. As those loans were contingent on continued circulation of US wheat in Colombia, it was not in the interests of Procebada, IFA, or the Ministry of Agriculture to help Dr. Amiot discover that millers and market issues played just as important role in deficient wheat production in Colombia as did poor soil conditions and use of inadequate seeds.

Farmers were also, obviously, keenly aware of the market issues. For that reason, wheat production began to suffer and decline as it confronted a more stable market for barley. Bavaria and Procebada, for example, had had little trouble finding enough farmers to multiply Funza at the level required. The Caja Agraria, on the other hand, had not had similar good fortune finding farmers willing multiply Menkemen and

⁶² Ibid., 48.

Bonza. Eventually it resorted to an indirect method, in which it paid top price for the best wheat in annual commercial harvests and used those to develop seeds for the following growing cycle.⁶³

Initially, the Caja Agraria focused its sales of new wheat varieties in the departments of Cundinamarca and Boyacá. In 1955, Obonuco, another cold-climate experiment station, was established high in the Andes near Pasto, the capital of Nariño, and researchers discovered that Bonza and Menkemen grew well there also. The Caja Agraria then began to promote the new seeds in Nariño as well. Nariñense wheat farmers quickly adopted the new varieties. Although by 1959, Nariño was still only the third largest wheat-producing department in the country, the efforts to increase its production had made an enormous impact. The Caja estimated that almost 50% of that department's wheat fields were planted with an improved variety, which compared quite favorably with Cundinamarca and Boyacá, where the "regional varieties" were still commonly used.⁶⁴

Unfortunately, during that year's growing season, a new strain of wheat rust for which Menkemen had no resistance crossed the border from Ecuador to Nariño. After wiping out the Ecuadorian wheat harvest, *Puccinia graminis* ravaged the fields sown

⁶³ Fabio Arango L. and Abraham Bravo, "Multiplicación de semillas de trigo en Cundinamarca," *AT* 15 (March 1959): 179-184.

⁶⁴ Carlos Serrano & Rafael Paris Navarro, "Las variedades mejoradas de trigo en el departamento de Nariño," *AT* 15 (May 1959): 303-306; RAC, RF, 12.3, Diaries: "Una granja modelo," *La República*, July 26, 1959; "Importantes investigaciones agrícolas se realizan en Granja de Obonuco, Pasto," *El Colombiano*, July 20, 1959. There is discrepancy over when Obonuco was founded and began wheat research. One source says that it was in 1953, not 1955. See RAC, RF, 12.3, Diaries, "Tecnificación de los cultivos y de minifundios de Nariño se emprende," *El Espectador*, July 22, 1959. The station was still rather small in 1959, when members of Sociedad de Agricultores de Nariño asked for substantial improvements in the installations at Obonuco as well as those of the Caja Agraria's seed treatment facility. A few weeks later, the Caja Agraria announced the appointment of Oscar Saldarriaga as Section Chief of the Wheat Campaign in Nariño. See, "Otras noticias," *AT* 15 (June 1959): 401-402; "Departamento de Fomento Agrícola," *AT* 15 (July 1959): 558.

with Menkemen in southwestern Colombia. Estimated losses surpassed one million pesos. In some wheat-growing areas, every field was decimated. The disaster wrought by the rust spurred DIA and the Ministry of Agriculture not only to discontinue the sale of Menkemen, but to eliminate it from Colombia entirely.⁶⁵ Fortunately, two completely new varieties, apt for Nariño's growing conditions and resistant to the new *roya* strain, were in advanced stages of research. "Diacol Toca" and "Diacol Nariño" had both already been sent to the Caja Agraria for preliminary multiplication.⁶⁶

Taking Menkemen out of circulation happened shortly after the Caja Agraria had begun a new program to attempt to further promote the use of improved wheat seeds. For some time, Procebada had been offering Funza seeds at an affordable price to barley growers, and assistance seeking credit, if they needed it. The Caja Agraria also offered improved wheat seeds at a low price, as well as the credit to help farmers pay for them.⁶⁷ But, farmers were more likely to adopt the new barley seeds than the improved wheat varieties, and so the Caja Agraria devised a new plan to more widely disseminate the use of Bonza and Menkemen. Nominally called "Credit in Kind," the program offered credit in the form of the seeds themselves, rather than the cash to purchase them. Fertilizer, insecticides, and fungicides were included in the "credit," as well as technical assistance on proper growing methods. The program began early that year

⁶⁵ RAC, RF, 12.3, Diaries, "Cuantiosas pérdidas en los cultivos de trigo en Nariño," *El Tiempo*, August 6, 1959.

⁶⁶ "James G. Dixon," *AT* 15 (June 1959): 400-401. RAC, RF, 12.3, Diaries: "Extraordinario impulso a la agricultura dará Tibaitatá," *La República*, July 14, 1959; "Interesantes programas de investigación agropecuaria se adelantan en Tibaitatá," *La República*, August 7, 1959; "Tres variedades nuevas de trigo serán lanzadas," *El Tiempo*, August 8, 1959.

⁶⁷ See, for example, their ads in *Agricultura Tropical*: "Procebada," *AT* 15 (January 1959): 6; "Caja de Crédito Agrario," *AT* 15 (January 1959): 10; "Mejor semilla, mejor cosecha," *AT* 15 (March 1959): 264.

and by July the Caja had made 386 such loans equivalent to \$3,503,943.18 involving Menkemen, Bonza, Funza, and Monserrate (an improved potato seed).⁶⁸

Nevertheless, despite these promising efforts, the future for wheat looked bleaker by the day. In early 1958 the funding from PL480 and the Development Loan Fund eventually came through. By that June, the \$36,000,000 from PL480 had been received and a new Agricultural Minister, Gilberto Arango Londoño was putting the finishing touches on a follow-up PL480 loan for Fertilizantes in the amount of \$10,000,000.⁶⁹ What did this mean for Colombia's wheat and barley growers? In 1956, when Estebán Rico Mejía expressed concern about the competition for land in Colombia's cold-climate regions, he could probably not have imagined the impact that Funza would have on the nation's wheat-growing regions. What was that impact? The following section will review the effects of Funza and Fertilizantes on Colombia's wheat production.

The Battle of Wheat and Barley

"Colombia, an agricultural nation *par excellence*, has finally understood that the integrity of its future and the possibility of obtaining a better life for all lies in the appropriate care and use of the land." With those words, the Minister of Agriculture, Gilberto Arango Londoño, inaugurated the Fifth Agricultural Fair held in Bogotá in August 1959. Arango praised the remarkable technological advances the country had

⁶⁸ RAC, RF, 12.3, Diaries, "Semillas mejoradas está suministrando la Agraria," *El Siglo*, July 22, 1959.

⁶⁹ Dale W. Adams, Guillermo A. Guerra A., Philip F. Warnken, Richard G. Wheeler, & Lawrence W. Witt, "Public Law 480 and Colombia's Economic Development" (Medellín: Universidad Nacional de Colombia, 1964), 132.

made, as well as the improvements in providing credit and technical assistance. His inaugural speech praised the nation's agronomists, observing that, although the country still did not produce everything it needed, all signs indicated that it was moving in the right direction. He pointed to cotton as an example of how successfully the country was moving toward its goal of self-sufficiency. He invited the Fair's visitors to stop by the pavilion of the Instituto de Fomento Algodonero (IFA – Cotton Development Institute) to see how the textile industry had become “authentically Colombian in all its [production] stages.”⁷⁰

Although Arango Londoño did not mention wheat in his speech, other statements at the Fair, both by the Minister and by barley farmers, were the first volleys in a two-month “battle of wheat and barley” in the nation's press. Granted, many of the nation's agronomists had been in battle mode before the Fair even began. The cover of that month's issue of *Agricultura Tropical* featured a photograph of a lush field of Bonza wheat growing on the Sabana de Bogotá and included two different articles on wheat production. One was a feature explaining the steps involved in multiplying an improved seed such as Bonza. As the article mentioned that the Caja Agraria paid 10% more than the market price for seed to be used for multiplication purposes, it seems that it was partly designed to recruit farmers for this important step, especially considering the recruitment problems discussed in the journal several months earlier.⁷¹

⁷⁰ RAC, RF, 12.3, Diaries, Box 21, “Colombia ha entendido al fin que en la tierra está la integridad de su futuro: Expresó el Ministro de Agricultura al inaugurar la V Feria Agropecuaria,” *El Siglo*, August 6, 1959.

⁷¹ Rafael Paris Navarro, “Producción de semilla seleccionada de trigo,” *AT* 15 (August 1959): 517-525.

Esteban Rico Mejía penned the other article about wheat. Although he still worked on barley for Bavaria, he was also the president of the Asociación Colombiana de Ingenieros Agrónomos (ACIA – Colombian Association of Agronomic Engineers) and thus spoke in defense of all agricultural producers. Market instability and lack of will were the twin problems plaguing wheat growers and promoters, he declared. The simple laws of supply and demand explained why the country had not yet come anywhere close to successfully substituting this agricultural product. Echoing the issues raised by the SAC in 1957, Rico Mejía noted that at harvest time, prices drop considerably and rise again afterward. Farmers suffer when this happens, while speculators and middle-men benefit. Considering all of the difficulties facing farmers (bad weather, insect plagues, weed infestations, plant diseases, scarcity of land, seeds, fertilizers, machinery and labor, as well as theft and vandalism), it goes without saying that farmers look for the least risky crops to cultivate and unsurprisingly, the “preferred activities are those in which the conditions of credit, ease of cultivation, diverse markets, price stability, technical assistance from the Development Institutes, etc., offer the best prospects.” Hence, farmers preferred cotton, rice, and barley.⁷²

Wheat, on the other hand, according to Rico Mejía, offered none of these advantages to farmers. Noting the problem this caused because the required imports consumed so much of the country’s foreign reserves, he argued that promoting wheat production did not mean displacing other important crops. It meant improving conditions for the nation’s remaining wheat growers. The market circumstances he

⁷² Estebán Rico Mejía, “La situación del agricultor ante los distintos renglones de producción,” *AT* 15 (August 1959): 505-506.

described for those growers were grim. Badly organized companies seemed to be their principal buyers:

...fly-by-night operations, with inadequate installations for the proper receipt of harvests (scales, dryers, silos, warehouses), who constantly delay weighing, classifying, and paying for shipments. And even if they do complete the various buying operations fairly and with correctly calibrated equipment, farmers often have to resign themselves to suffering the martyrdom of coming and going from one place to another pleading and begging for them to buy their harvests. Sometimes they have to look on dispassionately as the quality of their wheat changes dramatically from one place to another as if by magic. And if the already excessively endemic importation of foreign wheat occurs at the same time as the harvest, as usually seems to happen, there is catastrophe. Then national wheat is not needed, isn't appropriate for industrial uses, is humid, there are neither funds to purchase it, nor places to store it, or dry it and not even time available to wait on the farmer.⁷³

If these issues were resolved, Rico Mejía declared, then wheat growers could continue to cultivate this important grain, and they would be able to join their fellow barley and cotton farmers receiving improved seeds, credit, and technical assistance from the Caja Agraria and the Ministry of Agriculture. But this was only possible if the government enacted measures to stabilize the market itself, such as price supports and requiring complete absorption. As he argued, credit and improved seeds “are useless if the market is chaos.”⁷⁴

At heart, the problem lay in the promotion of wheat in word only. It wasn't enough to just exhort farmers to grow wheat, he claimed; without backing up those words with solid measures to support them, the policy was senseless. Accusing the government, INA, and the Caja Agraria of lacking political will, Rico Mejía argued that

⁷³ Ibid.

⁷⁴ Ibid.

if those entities dedicated a bit of energy to the difficulties facing wheat growers, they would be able to fix things in no time.⁷⁵

Rico Mejia concluded with a paradox and a flourish. In a country that wanted to achieve self-sufficiency, especially in products that devoured foreign reserves, it was incomprehensible to him that the government did not truly stand up for wheat growers. Recognizing that tremendous inertia or powerful interests ultimately limited wheat promotion policies to mere words, he demanded, at the very least, honesty: “If we can’t or won’t produce the wheat we need, well, then let’s eat bread made from corn, or yucca, or banana. But let’s not be mistaken. Land for wheat growing is there, but what’s missing are incentives, and we can’t fill up one hole by digging another.”⁷⁶

That the government only paid lip service to the idea of self-sufficiency in wheat without actually committing real resources to making it happen was evident in statements the Minister of Agriculture made during an informal interview at the Agricultural Fair that month. After discussing the efforts that had been made to promote cattle-ranching and sheep-raising, a reporter asked Arango Londoño what other agricultural development campaigns his administration planned to support that year. Wheat and cacao were at the top of his list. The goal for both was to achieve “integral import substitution...in the shortest time possible.” The method was reliance on improved seeds. They were, in fact, the only thing the Minister discussed. Granted, the news about improved wheat seeds developed in Colombia was outstanding.

Arango Londoño praised the work of the wheat breeders at Tibaitatá and proudly

⁷⁵ Ibid.

⁷⁶ Ibid.

noted that a delegation from the International Wheat Commission had recently visited Colombia and declared that Menkemen and Bonza “lead in the rankings of the highest quality and most productive improved seeds throughout the world.” While this was certainly something to celebrate, it also essentially proved Rico Mejía’s assertions that the government was unwilling to or uninterested in committing significant resources toward achieving self-sufficiency. The research at Tibaitatá was partially funded by the Rockefeller Foundation and it did not require sacrifice of other cherished political or economic goals to produce a high-quality improved seed. Providing the credit, technical assistance, regulation of the wheat market, and restrictions on imported grain that were necessary to achieve self-sufficiency in wheat, on the other hand, required spending significant political capital, confronting entrenched economic interests, and, ultimately, sacrificing resources (such as the loan monies available through PL480) that could be used to achieve other development goals. Arango Londoño did not mention any of those.⁷⁷

Other events at the Agricultural Fair reinforce the notion that developing improved wheat seeds was a way for the Ministry of Agriculture to claim that it was doing something toward the goal of self-sufficiency while not actually doing much at all. Procebada set up a booth at the fair, which was visited by thousands of people. The exhibit explained the entire process of barley production, beginning with the

⁷⁷ RAC, RF, 12.3, Diaries, Box 21, “Notorios progresos en la calidad de la industria pecuaria nacional,” *La República*, August 7, 1959. Although it is possible that he did indeed talk about such things but they were left out of the newspaper article, this seems unlikely in light of his earlier discussion about cattle-ranching. He spoke at length about the economic logic of the dairy industry and how it came into direct conflict with that of the meat industry, which was the one that Arango’s Ministry of Agriculture was interested in supporting. He also outlined a technical solution to this economic conflict. It seems unlikely that a similar discussion for wheat would have been left unreported (especially in light of how many political and economic interests were at stake).

preparation of the land for planting and ending with the most beneficial harvesting method. The exclusive use of improved seeds – provided by Procebada – was emphasized. Despite the importance placed on the science and technology behind the country's increased barley production, price was the thing on everyone's mind. As one reporter noted: "...the main comment heard at the National Agricultural Fair [was]... 'Barley is defeating wheat due to the incentive of good prices.'" These prices were not accidental. Production increases upward of 30% were attributed to the policy of the beer companies to set the price beforehand and honor it throughout the harvesting season. Procebada calculated that the combination of beneficial price policies and scientific and technological advances were saving the equivalent of \$50,000,000 pesos in foreign reserves.⁷⁸

A reporter's observation that "good prices have created a battle between wheat and barley, and barley is winning," highlight the effect of inaction on the part of the Ministry of Agriculture, the Caja Agraria, and INA to protect and promote wheat production. Improved seeds were only a first step; they had to be supported in other ways for them to succeed. The contrasting levels of support for these two agricultural products was highlighted in an informal conversation outside of the Procebada exhibit. As a reporter approached the booth, José Maria Giraldo, the farmer on whose fields Funza was originally found growing wild, was standing nearby talking with some other farmers. By that point, he was cultivating Funza on a very large scale. When he

⁷⁸ RAC, RF, 12.3, Diaries, Box 21, "\$90.000.000 vale la producción de cebada," *El Tiempo*, August 8, 1959.

saw the reporter he interrupted his conversation to comment on the battle of wheat and barley:

Good prices – and, naturally, good technical assistance – have created the barley boom, which is defeating wheat. I believe – and so tradition says – that wheat is the king and barley a distinguished young lady. What’s happening is that the young lady yields two harvests and has stable prices, something that doesn’t happen with wheat.⁷⁹

As the farmer whose fields fostered Funza in the first place, Giraldo had certainly earned some bragging rights. But the reporter uncritically assessed his statements:

“Such was a direct comment made by a farmer who objectively understood the problem, just like the hundreds of his colleagues who sowed barley this year.”⁸⁰

The mood outside the DIA booth was far more subdued. Intriguingly, an article about its activities at the Fair appeared in *El Tiempo* the day after the article reporting on the Procebada booth and began with the words, “Also at the Agricultural Fair,” subtly suggesting that providing a report on DIA’s exhibit was an afterthought. One farmer standing nearby was enthusiastic, offering a positive assessment of the work at Tibaitatá: “Colombia has advanced in agricultural research more in ten years than in the previous hundred.” But the DIA exhibit was dedicated to more than just wheat, and included information on potatoes, beans, and corn; the farmer could have just as easily been referring to any of those crops or making a general statement about agricultural research overall. When it came specifically to wheat, the pessimism was palpable. Leonidas Angarita was the DIA wheat specialist providing information and answering questions at the booth and he lamented that, despite the research advances, “wheat

⁷⁹ Ibid.

⁸⁰ Ibid.

production was declining due to the lack of fixed prices, which allow the farmer to know how much he will receive for his harvest." An animated conversation ensued when someone pointed out that the area under wheat cultivation remained stable at 180,000 hectares, implying that the origin of production decreases lay elsewhere. The recent losses in Nariño from the rust fungus outbreak that hit Menkemen were mentioned, and Angarita discussed how research on new varieties to take its place had consequently been "very active." Preserving DIA's good reputation was as much at stake in that intensified pace of research, however, as ensuring increased production. And even exceptionally good measures attesting to the quality of the varieties produced at Tibatitotá were placed in a negative light through comparison with barley: "....yields with the Bonza variety have reached 2,500 kilos per hectare. The difference with barley lies in the fact that wheat only produces one harvest annually, while barley easily gives three." With statements such as those, although "hundreds" of people visited the DIA exhibit, it is not surprising that the mood there was more restrained than at Procebada's.⁸¹

A few days later, the "battle of wheat and barley" escalated dramatically when *El Tiempo* published a column by Eduardo Caballero Calderón condemning the policies of the national government and the beer companies – essentially accusing them of promoting alcoholism in the name of import substitution, industrialization, and profit-making. Caballero was a novelist and regular columnist in *El Tiempo*.⁸² Poetic prose and

⁸¹ RAC, RF, 12.3, Diaries, Box 21, "Tres variedades nuevas de trigo serán lanzadas," *El Tiempo*, August 8, 1959.

⁸² He is also the author of *El Cristo de espaldas*, one of the most important novels of *la Violencia*, and a core part of the Colombian literary canon.

imagery infused Caballero's August 11, 1959 column titled simply "Wheat and Barley." Color was an important theme in his first paragraph presenting bucolic vignettes of life and scenery in the countryside. The sky was blue, swept clean by the August winds. July rains brought beauty and color to the country: the sown fields were green, the fallow fields black, and the mountains blue. Colorful tiles clothed otherwise naked figures on the church dome in the village (by order of the local priest). Even tacky elements, such as the "pretentious cement screens" wealthy residents put on top of their houses, instead of the traditional clay tiles, looked attractive from a distance.⁸³

The town wasn't just a sleepy village though, but rather a busy center of production and consumption, judging by the "interminable parade" of overflowing trucks that came and went. Drivers unloaded their cargo in front of side-street shops and on the unpaved central plaza, trucks sat idle while their operators sat inside cafés, refreshing themselves.

But not all was well with this idyllic picture. The green of the fields was the blue-green of barley rather than the bright green of wheat. What bright green there was to be seen had migrated from its former place in the level fields to the uneven slopes of the mountainsides. The giant trucks constantly coming and going "carried barley rather than wheat, baskets of beer rather than bundles of bread." The sweet smell of freshly baked bread had been replaced by the unpleasant odor of bitter beer. The gentle imagery of country life was replaced by a series of war metaphors:

⁸³ RAC, RF, 12.3, Diaries, Box 21, Eduardo Caballero Calderón, "Trigo y cebada," *El Tiempo*, August 11, 1959.

...in the hills and plateaus of the Andes, barley has been winning the battle against bread. A river of beer runs through the streets, knocks at the doors of farmers' huts, forms pools in village plazas. With its victorious infantry, barley advances over the lands previously sown with wheat and corn. In one of the official bulletins released by the Ministry of Agriculture, it was reported that this year the nation would have to import wheat to knead its bread, because barley, or more specifically, beer won the battle on all fronts.⁸⁴

Caballero recognized that he was taking literary license with his topic, but excused himself by indicating that he, unlike the Ministers of Agriculture and Hygiene, was not an expert in the subject, slyly suggesting with his tone that they were not experts either. He alleged that he was merely describing the current scene in the rural areas of the Andes: "barley and beer, but not wheat or bread." He claimed that it was only curiosity that led him to describe these scenes, as he did not like to "get involved in other people's lives." What seemed most curious to him was that the nation's leaders had managed to rescue the popular classes ("el pueblo") from the "nauseating bowl of *chicha*, where corn and crime fermented," only to end up throwing them into a vat of beer. For proof one needed only to follow the money trail: "To fully understand what Colombia drinks, it is enough to know that the main income of the eastern departments, of the farming regions by nature and by temperament, comes from taxes on beer."⁸⁵

At that point Caballero made a number of accusations, a few of them valid, but some of them disputable at best, and others outright false. Nuggets of truth were exaggerated to the point of caricature. He claimed, for example, that the reason farmers no longer wanted to cultivate wheat was because they preferred beer to bread.

⁸⁴ Ibid.

⁸⁵ Ibid.

Considering the economic incentives barley producers enjoyed, and the disincentives for wheat growers, such a general pronouncement about the nature of Colombia's farmers reduced them to irrational actors, incapable of analyzing a given situation and then opting for the most viable and reasonable path. They became nothing more than the sum of their bodily desires. Caballero also claimed that not one public or private entity offered "the least bit of stimulus" for wheat production: "Nobody worries about improving the product or stabilizing prices, as the beer companies are doing for barley." While the reference to prices may have certainly been true, the accusation that nobody was attempting to improve wheat completely overlooked the almost thirty years of work that the Ministry of Agriculture had conducted to improve the country's wheat production. Caballero ignored the existence of Menkemen and Bonza. Of course, there were valid criticisms about the Ministry's policies promoting the development of these seeds without offering the other supports necessary for them to make a difference, but to say that nothing had been done at all was certainly an exaggeration. In another poetic accusation, he claimed that barley was "devouring farmers' land, or rather, drinking it," since barley was known to deplete the soil, or as Caballero put it, "sterilize and kill it." Such accusations were usually lobbed at wheat instead of barley, making this reversal a surprising one, but ultimately, neither one depleted the soil any more rapidly than the other. Cultivation practices, rather than any inherent qualities in either of these crops, played a much larger role in soil conservation and fertility. Finally, the most vehement accusation was directed at millers. Caballero charged them with complete indifference to the nation's well-being, claiming that their economic logic

made it acceptable for them to use imported North American wheat, while refusing to invest “even one peso” to support national production. Their coldness and lack of sympathy was harshly portrayed: “The millers, prostituted by a drunk State that is taking bread from the mouths of farmers’ children, can calmly say: ‘If they let us bring wheat from Canada and the United States, why should we care if farmers grow barley, destroying their soil in the process?’” Caballero warned that if the situation he described continued as it was, soon there would be no wheat grown in Colombia at all, other than perhaps in someone’s backyard garden, as a remembrance of past times.⁸⁶

Despite the fact that Caballero had repeated many of the complaints they had been making for several years, his article was not well-received by the individuals involved in wheat research and extension at the Ministry of Agriculture, DIA, Caja Agraria, and CAP. Canuto Cardona, the director of DIA, met with his staff and together they drafted a response which was published several days later in *El Tiempo* under the Agriculture Minister’s name.⁸⁷ He began with a swipe at Caballero: “A few days ago, Eduardo Caballero, one of our most genuine, capable, and pleasant writers, published an article discussing, in what seems like a page ripped from a Romantic novel, the battle of ‘wheat and barley,’ and ‘bread and beer.’”⁸⁸

Whether Arango meant to compliment or criticize Caballero’s article by comparing it to a Romantic novel is unclear. The unfairness of Caballero’s piece was

⁸⁶ Ibid.

⁸⁷ RAC, RF, 1.2, 311, Box 3, Folder 16, Letter from UJG to LMR, dated August 28, 1959. Although *El Tiempo* introduced the article by stating that its reporters had personally interviewed Arango Londoño and were publishing his answers to their questions, the fact that the response was prepared beforehand is evident by the detail in the Minister’s “answers.”

⁸⁸ RAC, RF, 12.3, Diaries, Box 21, “El gobierno sí estimula la producción triguera, Manifiesta el Ministro de Agricultura, Arango Londoño,” *El Tiempo*, August 15, 1959.

ultimately his more pressing concern, in any case. He focused on Caballero's assertion that no public or private entities offered "the least bit of stimulus" for wheat production, either in the form of improved seeds, price controls, credit, fertilizers, or farm machinery. Arango countered with data apparently suggesting otherwise. DIA had distributed 5,588,195 kilos of improved seed between 1953 and 1957. Planted on 56,000 hectares, they had produced 1,500 kilos per hectare, comparing quite favorably with the mere 800 kilos per hectare produced during the same period by "common seeds." Profits also grew. Total production with improved seeds amounted to 84,000,000 kilos, valued at \$74,928,000 pesos, while common seeds had produced only 44,800,000 kilos, amounting to only \$34,967,000 pesos.⁸⁹

Data on credit and loans seemed equally compelling. In 1957 a total of 1,035 Caja Agraria loans valuing \$928,380.00 pesos had been granted to barley farmers, while wheat farmers, on the other hand, had received 9,477 loans totaling \$6,441,061.00 pesos. The figures for 1958 were even more dramatic. While the quantity and amount of loans for barley farmers increased slightly - 1,334 loans equaling \$1,656,403.00 pesos - loans for wheat farmers increased exponentially: 10,917 loans totaling \$11,175,317.00 pesos had been made. Figures such as these proved that Caballero was wrong, according to Arango Londoño: "...with apologies to the esteemed author, that there has indeed been official attention directed toward improving yields and providing credit to farmers."⁹⁰

But Arango Londoño's numbers are incomplete. He provided loan information only for 1957 and 1958. Recall that Procebada was established in late 1957. While it did

⁸⁹ Ibid.

⁹⁰ Ibid.

not offer credit to farmers, it did supply them with seeds, fertilizers, and farm machinery. Consequently, after 1957 barley farmers had less need of direct Caja Agraria loans. Procebada, however, was partially funded through the barley tax paid by the beer companies to the Caja Agraria. In other words, there were other money streams channeling credit from the Caja Agraria to barley farmers, streams that bypassed its official system, and which could, thus, be hidden in plain sight, and left unmentioned by Arango Londoño.

Ultimately, Arango Londoño's attempt to show that wheat was not overshadowed by barley reinforced Rico Mejía's criticisms (in *Agricultura Tropical*) that developing seeds, and even providing credit so that farmers could use them, while essential and commendable, were insufficient. As Rico Mejía asserted, market issues needed to be addressed. Arango Londoño did so, but in a way that completely sidestepped the crucial issues for wheat farmers. Instead of price supports, guaranteed sales, regulation of market transactions, or the construction of storage facilities that would assist farmers, he spoke instead about the connections among barley, wheat, and the nation's foreign reserves. Increased barley production reduced Colombia's dependent position by preserving its foreign reserves. P.L. 480 wheat imports did the same. He concluded by returning to technical expertise as the key to the problem and condemning what he saw as the false conflict generated by Caballero's article: "In Colombia we have sufficient land for wheat and barley. One does not oppose the other,

and it is to be expected that the greater use of technology will allow us to increase production of both every year, which means reduced costs and better use of the land.”⁹¹

Arango was not the only one who sidestepped market issues. A week later, when *La República* published an interview with Canuto Cardona Alvarez, the director of DIA. Cardona also protested Caballero’s assertions, claiming that barley and wheat received equal attention and the research and extension programs for each were similar. He echoed Arango Londoño when he discussed the new varieties that had been developed, focusing, like the Minister, on the technical aspects of production rather than market issues. As director of the research arm of the Ministry of Agriculture, he could add more in-depth information about new areas of research. DIA was developing a warm weather wheat variety that could be grown at Colombia’s lower elevations. Preliminary results at the Palmira experimental station near Cali seemed promising and, if successful, would allow Colombia to expand wheat cultivation areas. It had begun work with dwarf varieties to deal with the problem of “lodging” – the inability of a stalk to sustain its wheat and ultimately fall over.⁹² And much effort was dedicated

⁹¹ Ibid. Arango further praised P.L. 480 wheat imports, claiming that the monies Colombia paid to purchase grain through the program was ultimately returned to the country as investment in other development projects. Of course, the Fertilizantes project immediately comes to mind and points to the strong support the Ministry of Agriculture gave to “commercial” over “alimentary” agricultural production. To demonstrate that he was not completely ignorant of the issues wheat farmers faced, he did also briefly discuss the fact that INA was the country’s exclusive wheat importer, and that mills could not purchase any of its foreign grain until they provided evidence that they had first purchased their required quota of national wheat.

⁹² RAC, RF, 12.3, Diaries, Box 21, “Los cultivos de trigo y cebada han contado con igual atención,” *La República*, August 23, 1959. Lodging was a natural problem exacerbated by “Green Revolution” agricultural technologies. When large amounts of nitrogen were applied to wheat fields, farmers could plant more seeds, dramatically increasing yield, but also increasing the density of the fields, and thus the possibility for the plants to rapidly spread diseases such as stem rust. If infected, stalks might tilt over more than 45°; when this occurred, they were said to have “lodged.” If the plant touched the ground or failed to grow “elbows” pushing the stalk upward, it would die. Even if the plant survived, however, lodged stalks make harvesting more difficult, if not impossible, with modern machinery. Dwarf varieties, with shorter and thicker stalks, were less susceptible to lodging, and thus DIA had begun research in that area, in the hopes of resolving this problem in Colombia.

toward “combined fields” – plots sown with multiple varieties resistant to different plant diseases. In case of fungi or insect invasion, such fields protected farmers from total loss.⁹³

Cardona also directly addressed the market issues raised by Caballero and the farmers at the Agricultural Fair. Rather than skirting the issue by discussing PL480 and the import substitution benefits of promoting barley production, as Arango had done, Cardona went straight to the core of the widely circulated criticism, acknowledging that preset prices most certainly did seem to have a beneficial effect and encourage the expansion of barley production. Guaranteeing sale prices, however, was not part of DIA’s mandate, he protested. Other agencies existed to handle that.⁹⁴

Unfortunately, none of the other agencies in charge of managing the wheat market – namely INA – spoke up in response to Caballero’s article. This, of course, provided further strength to Rico Mejía’s assertions in *Agricultura Tropical* – that the state was not really interested in promoting wheat production and that emphasizing scientific and technical aspects was a convenient way of doing nothing while seemingly doing something.

Up to that point, Ulysses J. Grant, a Rockefeller Foundation corn breeder who had become the director of the CAP earlier that year, was not overly concerned about

⁹³ Ibid. The success of a combined field lies in having a number of varieties with different strengths and weaknesses. These include resistance to certain plant diseases or pests, high yield, and ability to withstand extreme temperatures. All of them are carefully bred beforehand, however, to ensure that they reach approximately the same height at maturity, to ensure ease of harvesting with mechanical equipment. The recent failure of Menkemen in Nariño made this a crucial area of research. Cardona addressed another element of Caballero’s assertions that Arango had ignored. He claimed that there was no scientific basis for asserting that barley depleted the soil. Both grasses required “adequate care” of the soil to preserve its fertility, but neither was any worse than the other

⁹⁴ Ibid.

the bad press. Although he recognized that several of the assertions that had been made were “quite untrue,” he also believed that to some degree they stung because they reflected a serious problem: “Colombia is deficit in wheat by about 150,000 tons per year and this is hurting the national pocketbook.”⁹⁵ Grant was fairly new in the country, however. John Gibler, the CAP’s wheat breeder had been there for several years and he was, according to Grant, “quite disturbed” about the articles in the press. Part of his anxiety may have stemmed from another that had appeared that week.⁹⁶

Penned by Raúl Varela Martínez, the article essentially condemned as useless all of the work that had been done to develop wheat in Colombia. Varela, unfortunately for the CAP, the DIA, and the Caja Agraria, was a well-respected Colombian agronomist, who had held several important positions within the Ministry of Agriculture during thirty continuous years of public service, including Agricultural Zone Chief, Director of Agricultural Experimental Station, Director of the National Department of Agriculture, Director of the Department of Agricultural Economics, and Director of the Department of Natural Resources. By 1959, he was the Ministry of Agriculture’s Technical Secretary. In 1952, ACIA awarded him the Medal of Agronomic Merit and in 1953 SAC awarded him the Medal of Agricultural Merit. At their November 1959 annual meeting, ACIA approved a resolution asking the Minister of Foreign Relations to award Varela the

⁹⁵ RAC, RF, 1.2, 311, Box 3, Folder 16, Letter from UJG to LMR dated 8/29/59.

⁹⁶ RAC, RF, 1.2, 311, Box 3, Folder 16, Letter from UJG to LMR dated 8/29/59.

Cruz de Boyacá, a medal awarded by the Colombian government for meritorious service to the nation.⁹⁷

Clearly a man of great standing among Colombia's agricultural scientists, his opinions mattered a great deal. And his words may have been what so upset John Gibler, the Rockefeller Foundation's wheat breeder. Even Grant commented to former director Lewis M. Roberts that he was confused by the situation: "I understood from you that Raúl Varela M. was a good friend of ours, but some of his recent statements to the press seem to indicate otherwise."⁹⁸

Varela began with the oft-repeated argument about the origins of the wheat plant, claiming that botanists, geneticists, archeologists, and historians had determined that it originated in a temperate zone of Asia (Iran, in this case). This meant that for Colombia, "situated in the heart of the torrid zone," wheat was an "exotic plant." For that reason, according to Varela, neither the Spanish during the colonial era, who first brought it to Colombia, or contemporary agronomists had much luck adapting it to Colombia's various climatic zones. Varela declared that current efforts to create a modified seed appropriate for Colombia "are not achieving the quality and volume to which the agronomists aspire, growers desire, and consumers need." Suggesting that Colombia was fighting a losing battle, he claimed that all the tropical countries

⁹⁷ "Raul Varela Martínez: Treinta años de servicios al estado," *AT* 16 (March 1960): 190-191; "Ultima hora: Epílogo fatal," *AT* 16 (March 1960): 193.

⁹⁸ RAC, RF, 1.2, 311, Box 3, Folder 16, Letter from UJG to LMR dated 8/29/59.

imported wheat, and the five largest producing nations (U.S., Canada, Argentina, Australia, and France) were all in the temperate zone.⁹⁹

Following that introduction, Varela presented a lengthy and multifaceted argument addressing both scientific and economic issues. His conclusion was murky none-the-less. He began with a common theme: production. Despite intense efforts, he argued, production had remained essentially stable over the past ten years, averaging around 130,000 tons per year, approximately 70% of which was ground into flour at a Colombia mill.¹⁰⁰ Countering recent claims to the contrary, he then offered statistics to show that wheat production still dominated the arable land in *tierra fría* not being utilized for cattle-raising, occupying 39% of it, in comparison to 26% and 23% for potatoes and corn respectively, and only a meager 12% for barley. He did acknowledge, however, that barley was more attractive for farmers and represented a “dominant and serious competitor for wheat.”

He then focused on how intensely wheat consumption had increased, particularly in large-scale manufacturing of bread, cookies, crackers, pasta, and cones for ice cream. The last two items presented problems for Colombia, however. Cones required flour with less than 8% protein content, while pasta required flour with more than 14% - neither of which Colombia produced, and which therefore had to be imported. The average protein content of Colombian grain was between 11-14%, which was in the range for making bread; Varela made no comment on that, however, other

⁹⁹ RAC, RF, 12.3, Diaries, Box 21, “Importación de trigo por 46 millones este año: La producción nacional estacionaría en diez años,” *El Tiempo*, August 22, 1959.

¹⁰⁰ Ibid. Approximately 10% was used for seed replication and multiplication and the other 20% used in domestic consumption.

than to report that the vast majority of bread produced in Colombia was the small baguette made by hand (almost 68.5% of the bread consumed in Colombia was that kind). He did however, indicate where most bread was baked: there were only 16 large bread factories in the country, while the vast majority of bread was made at one of the more than 3,000 bakeries that used firewood in their ovens. Crackers, on the other hand, were mostly produced by one of the two large-scale crackers companies – Noel, based in Medellín and Santa Rosa in Caldas. Thirty-seven mills were located throughout the country, in both the productive and non-productive zones. Most of them, however, produced poor flour of inconsistent quality, and only five were equipped with the most modern machinery necessary for large-scale, consistent production.

Of course, mills could only produce flour as good as the grain it used as raw material, and on that count, Colombia faced an insurmountable obstacle. Varela argued that due to the wide variability in topography, soil composition, and climatic conditions from one farm to another in the same region, “uniform wheat, in its biochemical properties, is impossible to produce at an industrial level in our tropical country.” For that reason, Varela claimed that Colombia would never be able to escape wheat imports: the cracker, cone, and pasta companies “need large quantities of consistently uniform flour with the same percentage of gluten, ash and viscosity,” but that this was impossible to achieve with domestic flour. Moreover, the country would have to import more than grain – imports of grain with the required characteristics outlined above

would be ineffectual if there were so few mills modern enough to handle it. Thus, even flour would have to be imported.¹⁰¹

The nation's nutrition was at stake, he argued. As it was, Colombia was not producing enough quality wheat to meet the nation's consumption levels. And yet, those levels were woefully inadequate. Varela offered statistics from the Instituto Nacional de Nutrition showing that contemporary wheat consumption in Colombia amounted to 6.54 kilos per person annually. For minimal health, however, the Institute suggested that annual per capita wheat consumption increase to 22 kilos. This was a minimum, moreover. According to Varela, on a per capita basis, Canada consumed 277 kilos of wheat annually, the United States 56, Venezuela 23 and Peru 21. Although he did not state it outright, it was clear what Varela was asking: if current Colombian production could not ensure that everyone consumed 7 kilos, how could it possibly raise that amount to 22 kilos?¹⁰²

This led Varela to his apparent final conclusion: wheat imports were increasing, but the country need not fear them, because they were being purchased through the PL480 program, which preserved foreign reserves. At that point, he took a swipe at those who promoted self-sufficiency in wheat production. He wrote how after Menkemen had been introduced with great fanfare in 1953, the then-Minister of Agriculture excitedly declared that after 1955, Colombia would have no more need of imported wheat. Somewhat sarcastically, he then wrote, "Let's see the result of that ambition," and gave statistics on the amount of wheat that had been imported since

¹⁰¹ Ibid.

¹⁰² Ibid.

1955, showing a dramatic increase over five years, from 75,720 tons in 1955 to 110,120 tons just in the first half of 1959. The ultimate conclusion of all the material he had presented was the following: "...the wheat that gives the daily bread for all the nations of the temperate zones, because it is abundant, good and cheap, is not so for the nations of the tropical zones, because it is neither abundant, of good quality or cheap."¹⁰³

Notable for such a detailed examination of the wheat market was the complete lack of attention to the price issues raised by Rico Mejía and the farmers at the Agricultural Fair. In fact, Varela's article directly served the interests of barley promoters. There is no evidence that he was connected to Bavaria or Procebada. But, his article definitively moved the discussion away from economic policies and toward the scientific bases of wheat production in Colombia.

Two days later, alarmed by Varela's dire portrait, the editors of *El Tiempo* published an editorial decrying the lack of efforts to solve the "wheat problem." At stake for the editorial's author was the very idea of the nation and its development: "...like any self-respecting country in terms of food resources, ours needs good quality wheat in quantities sufficient to meet consumer demand." In other words, countries worthy of respect were those that could feed themselves. But, while for Varela, there was no need for alarm, considering that the country could import wheat through the PL480 program, *El Tiempo's* editors believed that imports were a problem and should be avoided. Their solution lay, however, in increasing the area under cultivation and

¹⁰³ Ibid.

ignored other arguments about prices that had been made in its own pages over the previous two weeks.¹⁰⁴

The buzz in the newspapers riled the agronomists of the Caja Agraria's Wheat Campaign, who had recently formed a working group to coordinate activities. At their second meeting that month, they grumbled that the country's economic priorities favored self-sufficiency in commercial rather than food crops. Some of their conclusions echoed those of Varela Martínez. They agreed, for example, that production was deficient – the country only produced about half of the amount needed to satisfy demand. They also agreed with Varela's statistics showing that wheat occupied approximately 170,000 hectares of Colombian soil. Only 29,100 of those hectares were planted with improved seeds, however, a point that Varela Martínez had not mentioned. With an average yield of 1,500 kilos per hectare, the agronomists calculated that if every hectare planted with wheat used improved seeds, rather than the "common ones" widely in use, Colombia could increase its wheat production by 100,000 tons. Plans for achieving this massive conversion include the by-now familiar strategies of improved technical assistance, increased provision of credit, and better distribution of farm machinery. Also essential was the construction of more dryers and silos. Their longest suggestion was also a familiar one: improving the market. While previous commentators had denounced the nation's millers, however, these *técnicos*, perhaps in light of all the criticisms they had recently endured, went straight to the source of the problem – the Instituto Nacional de Abastecimientos (INA), the agency

¹⁰⁴ RAC, RF, 12.3, Diaries, Box 21, "El problema triguero," *El Tiempo*, August 24, 1959.

charged with regulating the market. While Rico Mejía earlier that month had declared that “fly-by-night” milling operations were the biggest problem Colombia’s wheat growers faced, these *técnicos* saw things differently:

...although INA, as the entity charged with regulating prices and the only one authorized to import wheat, has intervened in the market, growers have received very little benefit as a result of its interventions, being that the price reductions INA imposes for various reasons (humidity, weight, grain size, etc.) radically decrease the regulated price paid to farmers, which often compels them to sell their product to intermediaries or directly to millers, under disadvantageous conditions.¹⁰⁵

The *técnicos* called for the creation of a “remunerative and honest market” for wheat farmers, but included no recommendations on how to force INA to change its practices. Granted, ensuring that farmers all switched to growing improved seeds could have eliminated some of the quality problems that INA might have been able to claim in order to reduce the price, but there was no guarantee that improved seeds would meet with more luck, and if nothing had changed, would only make matters worse for farmers.

While the Caja Agraria attempted to keep economic policies at the forefront, it also worked in conjunction with the Rockefeller Foundation to counter Varela’s assertions about the scientific inappropriateness of growing wheat in Colombia. Yet, while this counter-attack certainly seemed necessary, especially to protect the reputation of the nation’s agronomists, their strategy ultimately helped to shift the discussion further away from the underlying economic issues and focus instead on the scientific ones. Although they intended their counter-attack to demonstrate that it was

¹⁰⁵ RAC, RF, 12.3, Diaries, Box 21, “Recomienda fomentar el cultivo de trigo,” *El Siglo*, August 24, 1959.

scientifically feasible to grow wheat in Colombia and that the real issues that prevented the nation from achieving self-sufficiency in wheat were economic, the effect was the opposite – in the end, it strengthened the perception that wheat production in Colombia would thrive or perish based solely on the scientific bases of its production.

Hoping to mitigate the bad press throughout August 1959, the wheat promoters lit upon the idea of organizing a “*día de campo*” – a visit to the Tibaitatá experiment station for reporters from the major newspapers. On August 28, Canuto Cardona and other Caja Agraria staff members had met with Grant and John Gibler from the Rockefeller Foundation to discuss strategies for dealing with the negative publicity. Further rebuttals in the newspapers, such as the ones published by Cardona and Arango Londoño, seemed pointless. Instead, a better strategy was to invite reporters to Tibaitatá “to see for themselves where we stand with the improved and good quality wheats.” Invitations should come from the Minister of Agriculture and the Manager of the Caja Agraria. Caballero Calderón and Varela Martínez were to be specifically invited. The *día de campo* should happen as soon as possible. As Grant noted: “If this is done within the next week, we can put on a very good show for our newspaper critics.”¹⁰⁶

Shortly afterward, *El Siglo* reported that an important *día de campo* was scheduled for Tuesday, September 8. Along with the reporters who focused on farming issues, the Minister of Agriculture had invited several members of Congress, some high-level Ministry staff, and the president of the SAC, as well as Douglas Botero Boschell, the

¹⁰⁶ RAC, RF, 1.2, 311, Box 3, Folder 16, Letter from UJG to LMR dated 8/29/59.

president of the miller's association (ASEMOL) and Luís A. Rodríguez, the president of the baker's association (ADEPAN).¹⁰⁷ Grant's prediction that they could "put on a good show" seems prescient, judging by the positive articles that appeared in various newspapers for almost two weeks afterward.

John Gibler led the day's activities together with Mario Zapata B. and Reinaldo Reyes, two DIA agronomists training as wheat breeders at the station. Their main goal for the day was to convince the reporters and invited guests that "up to 250,000 tons of wheat could be obtained annually, with the same growing area available, but utilizing improved varieties." To counter some of the recent bad press about Colombian wheat varieties, Gibler began the *día de campo* with the "shocking" statistic that "national flour produces two percent more yield than that obtained by North American wheat." Objections to the viability of wheat production in Colombia were quickly, and humorously, deflected. While describing the first test plot they visited that morning, for example, Zapata was interrupted by Rafael R. Camacho, the president of the SAC, with the protestation that in Colombia "wheat is an exotic plant." Without missing a beat, Zapata immediately shot back, "Yes, it is just as exotic as the coffee of which Colombia is one of the largest producing countries."¹⁰⁸

Zapata's quick and "well-aimed" response introduced a lengthy description and tour of the Tibaitatá experimental station, which would have made it difficult for anyone to claim that wheat research was being neglected in favor of barley. Gibler,

¹⁰⁷ RAC, RF, 12.3, Diaries, Box 21, "Importante Día de Campo en Tibaitatá," *El Siglo*, September 6, 1959; RAC, RF, 12.3, Diaries, Box 21, "'Día de Campo' sobre el trigo, en Tibaitatá," *El Espectador Vespertino*, September 9, 1959.

¹⁰⁸ RAC, RF, 12.3, Diaries, Box 21, "\$125,000 vale la producción triguera," *El Tiempo*, September 12, 1959.

Zapata, and Reyes discussed the over 3,345 hybrid varieties in test plots throughout Cundinamarca, Boyacá, and Nariño, as well as the laboratory studies involving 49,954 lines, which had resulted in 296 crosses and 930 other varieties under observation at the international rust nursery.¹⁰⁹

The withdrawal of Menkemen from the market was raised. Tibaitatá's wheat breeders explained that this was not a failure, as some were suggesting, but rather the normal course of things in plant breeding. Perhaps, they suggested, expectations had been too highly raised in 1954, when Menkemen was introduced as the "miracle seed" that would save Colombia from imported wheat. Gibler explained that it was common practice in the United States to take an improved seed out of circulation every four years. All seeds become susceptible to attacks by pests or plant diseases after a few years, he indicated, and research in the U.S. was ongoing in order to ensure a continual supply of new, resistant seeds. Thus, the discontinuation of Menkemen was not motive for disappointment or pessimism for the future of Colombian agriculture. As Gibler put it, "As far as Menkemen, which was once introduced as the 'miracle seed,' well, its retirement day has definitely arrived."¹¹⁰

Monoculture and its negative effects were discussed as well. After explaining the breeding process, Gibler, Zapata and Reyes took the reporters to a test plot apparently consisting of one variety because the plants were all of uniform size. The reporters were quite surprised to learn that it was actually a "multilineal plot," in which ten different varieties had been planted. The breeders explained that since some varieties were

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

resistant to certain pests, and others not, it made more sense to plant several varieties so that if a pest or disease hit, only some of the plants would be affected and the farmer would not suffer a total loss that year.¹¹¹

Dwarf varieties were also a big hit among the reporters. As most of those varieties had originated in Japan, reporters referred to them as “exotic varieties,” which seems ironic in light of the earlier condemnation of wheat as an “exotic plant” in Colombia.¹¹²

The “hundreds of acres” of wheat growing on the test plots at Tibaitatá offered a grand spectacle to the reporters. Two newspapers published very similar photographs, in fact, showing the business suit clad representatives of ADEPAN, ASEMOL, SAC, and the House of Representatives waist-high in wheat, in the middle of fields that seemed to stretch on for miles, broken by stands of trees in some parts of the background, disappearing into the horizon in others. The extensive areas of flat terrain near Facatativá and Mosquera on the Sabana de Bogotá, where Tibaitatá was located, certainly lent itself to such flattering camera angles.¹¹³ Photography tricks do not explain the enthusiastic optimism of the milling and baking representatives and the journalists present, however; the spectacle on the fields and in the labs were so persuasive that they apparently had become “...convinced that Colombia was on the road to solving its wheat deficit.” Even the president of the SAC, who, at the beginning

¹¹¹ Ibid.

¹¹² Ibid.

¹¹³ RAC, RF, 12.3, Diaries, Box 21: “‘Día de Campo’ sobre el trigo, en Tibaitatá,” *El Espectador Vespertino*, September 9, 1959; “Varios miembros de la Cámara de Representantes...durante la visita realizada ayer al Centro Nacional de Investigaciones Agrícolas de Tibaitatá,” *La República*, September 10, 1959.

of the day, had seemed skeptical that such an “exotic plant” could thrive in the Andes, acknowledged that the obstacle was not wheat’s adaptability to Colombia’s climate, but rather, market conditions. Declaring that “the difference between barley and wheat lies in the quality of the market that absorbs them,” he condemned the practices of the nation’s millers, who refused to accept national wheat, claiming that they couldn’t purchase it because their grain storage facilities were already filled with imported wheat. The Vice-President of the SAC, also in attendance, supported that assessment, telling the story of a wheat farmer who had sold his entire harvest to one milling company, accepting bills of exchange in payment, but which sadly “...have not all been completely paid.”¹¹⁴

These comments had come during a discussion of measures that could increase wheat production. Of the four, two were the jobs of extension agents – better seed distribution and enhanced technical assistance. The third was market intervention: the market needed to be better regulated to ensure that millers were prevented from speculating with grain and flour. The last measure was already in place – a campaign to promote bread consumption sponsored by ADEPAN.

Discussion of bread raised the specter of beer, and the battle of wheat and barley, which had been so much in the news over the previous month. Gibler, Zapata and Reyes assured their visitors that the two crops could easily co-exist, as long as market conditions were fair. Great profits were at stake. While visiting the Caja Agraria’s seed multiplication facility, on the grounds of the experimental station, the trio of

¹¹⁴ RAC, RF, 12.3, Diaries, Box 21, “\$125,000 vale la producción triguera.”

agronomists argued that more than half of the total profits earned through sales of national wheat in the first half of 1959 came from improved varieties, despite the fact that they still occupied such a small percentage of total wheat fields in cultivation. Finally, the *día de campo* ended with a visit to Tibaitatá's farinology department, where tests on the baking characteristics of improved varieties were conducted. Its manager, Dr. Hernando Arriaga, extolled the virtues of the center's new variety, Diacol Nariño, claiming that its baking quality was equal to that of Hard Red Winter" and "Manitoba," two varieties widely used in North America, and annually imported to Colombia in significant quantities. Ironically, the negative effects of raising the public's hopes too high in 1954 when Menkemen was released were ignored with the news that the release of Diacol Nariño was to be publicized by calling it the "savior seed."¹¹⁵

El Tiempo's extensive report of the *día de campo* was one of several articles about wheat that appeared in a variety of newspapers after September 8. Although they emphasized different aspects of the visit, they were mostly quite positive. The release of Diacol Nariño was particularly lauded. *La República* celebrated its resistance to *enanismo*, a common wheat disease, and *roya amarilla*, a wheat disease endemic in Nariño. This resistance ensured that production could be resumed in that department's wheat-growing regions, which had ceased after the *roya* wiped out Menkemen. Perhaps reflecting the Rockefeller Foundation's efforts to promote rotational farming with wheat, the article also reported that using "improved varieties" offered two other benefits: their yields were higher than "common varieties" and their growing season

¹¹⁵ Ibid.

were short, allowing farmers to plant two crops per year on the same soil. The only crop mentioned as a possible rotation partner was potato.¹¹⁶

Juan Lamus Cáceres was still publishing his Earth and Man column in *El Tiempo*, and he appears to have been among the visitors in attendance at the *día de campo*. Echoing *La República's* article about the release of Diacol Nariño, he assured readers that Colombia “need not be discouraged about the future of its wheat industry.” Plant diseases were no longer a problem with the specialists at Tibaitatá on the job, he asserted; if at any time wheat plants were threatened by fungal diseases, those scientists would quickly be able to develop and release a new, resistant variety. Tibaitatá was a “true laboratory” and the “Rockefeller Foundation and the Departamento de Investigaciones Agropecuarias [were] conducting an agronomic effort unparalleled in Latin America.” In that, Lamus Cáceres was not exaggerating, as Tibaitatá was indeed one of the few and perhaps the most highly developed cold-climate agricultural research stations in South and Central America. Lamus Cáceres was clearly on board with the campaign to downplay the “retirement” of Menkemen and promote Diacol Nariño. Remembering years past, when farm workers on the high, cold plains of Santurbán “used hats to thresh miserable wheat stalks,” he celebrated the change that Menkemen had wrought in increased yield, even though it had not fully lived up to expectations. But, the researchers at Tibaitatá had quickly recognized its limitations and

¹¹⁶ RAC, RF, 12.3, Diaries, Box 21, “Nueva variedad de trigo se distribuirá el año próximo,” *La República*, September 13, 1959.

developed Bonza and then Diacol Nariño, giving Colombian wheat farmers two new “miracle seed” varieties from which to chose.¹¹⁷

The rosy future in which “research at Tibaitatá...guarantees a steady supply of high-yield varieties...ensuring that decadent varieties are [always] replaced by young and strong ones” was not inevitable, however. Referring to John Gibler’s pronouncement at the *día de campo* that Colombian wheat produced flour with higher protein content than imported wheat, he asked “why then does the national product have such a modest reputation in comparison with imported wheat?” His answer was a familiar one. There was more money to be made speculating with imported wheat and raising cattle than with growing it in the highlands. As he declared:

...essentially, the problem of the wheat deficit and the lack of bread on the Colombian table does not lie in [poor seed quality] or the protein content of national grain, but rather, in the lack of economic incentive in its production. Price anarchy and insecurity means more profit is to be made with extensive zones planted with *kikuyo* grass than with wheat.¹¹⁸

Answering his question about the poor public perception of the quality of Colombian wheat by focusing on the market aspects that ultimately had very little to do with its quality echoes the construction of wheat as a “temperate” crop discussed in a previous chapter. Low protein content and high moisture were both important quality issues affecting the baking industry, but also discursive problems that conveniently allowed speculators, some millers, and those who preferred that land in the eastern cordillera be used for other purposes to deflect attention away from the market issues. The good press following the *día de campo* helped to briefly shift the public’s focus from

¹¹⁷ RAC, RF, 12.3, Diaries, Box 21, Juan Lamus Cáceres, “La tierra y el hombre,” *El Tiempo*, September 12, 1959.

¹¹⁸ Ibid.

the scientific and technical issues toward the market ones and certainly served to dispel the idea that no work to improve wheat had been done in the country.

This attention was cut short, however by none other than Estebán Rico Mejía. As one of Bavaria's principal barley breeders and the president of ACIA, he had a unique and privileged viewpoint. Unfortunately, his opinions on the "battle of wheat and barley" frequently wavered. In his article in the August issue of *Agricultura Tropical*, he was unequivocal in his condemnation of market instability and certain that it alone explained the deficient wheat production in Colombia. By mid September, however, he seemed to have changed his mind. It was almost as if the characterization of barley's success as being due to price and market factors annoyed him. He argued in a long article in *El Espectador Vespertino* that, while it was true that certain crops, such as barley, cotton, and sugar cane, were favored by industrial consumers who instituted measures to promote market stability, they would have had no success if there had not already been a strong scientific foundation in place. Issues such as seed selection, rational soil use, weed and pest control, and efficient harvesting methods had all been thoroughly studied before price policies were put in place. Even before those scientific issues had been studied, however, was the fundamental work to ensure that varieties were "perfectly adapted to soil and climate conditions." Both of these factors – scientific study and market measures – were essential: "the lack of either one necessarily limited the development of the crop being researched."¹¹⁹

¹¹⁹ RAC, RF, 12.3, Diaries, Box 21, Estebán Rico Mejía, "Productividad de los cultivos de cebada y trigo en el país," *El Espectador Vespertino*, September 9, 1959.

Barley provided a perfect example of what could be achieved, he argued, with a concerted effort to coordinate scientific research and market mechanisms. He proudly boasted that if the country still used the old varieties, it would have to “plant barley on over 125,000 hectares of land to produce the same 100,000 tons of grain that today [are] produced on only 60,000 hectares.”¹²⁰ Moreover, he claimed, this freed up 65,000 hectares that could be used to plant something else.

That “something else” was the problem, he suggested. Wheat, unlike barley, had “agronomic problems such as diseases that could not be controlled except through disease-resistant varieties, and the plant’s climate demands that we don’t have in our tropical environment.” Attributing the success of the barley promotion program to the fact that it had a shorter growing season than wheat, he completely denied the possibility that the country would ever have any luck in achieving self-sufficiency in the latter crop: “if there are grave obstacles [facing] wheat production, nature has granted to the tropics the marvelous capacity to produce a great variety of other crops, such as corn, rice, beans, banana, yucca, and pasture grasses.”¹²¹

Conclusion

That Rico Mejía’s opinion about wheat and barley production was compromised, despite his status as president of ACIA, was confirmed the following month when he was named Research Manager of the Bavaria Research and Extension Department, Inc.,

¹²⁰ Ibid.

¹²¹ Ibid.

a nominally autonomous organization supported by the Bavaria Consortium.¹²² Of all the people in a position to most effectively obscure the market support barley received, Rico Mejía was the one. He had intimate knowledge of the work that had been done to develop Funza, and thus, could readily counter any insinuation that barley succeeded not because it was developed on such a strong scientific foundation but rather because it enjoyed price supports and market mechanisms that wheat did not.

Of course, the work to obscure the economic policies that underlay barley's success was not yet complete. Enough voices still called for equality in the treatment of the two cereals. ACIA itself, in its annual end-of-the-year report on agricultural production noted that wheat was not achieving the gains everyone had hoped, and the primary reason was the lack of a fair market.¹²³ Over the next few years, Colombian agronomists and the Rockefeller Foundation would step up their criticisms of state policy that actively (although slyly) promoted agricultural production of industrial raw materials rather than food crops. They would eventually be joined by ADEPAN, the nation's largest association of artisanal bakers, who complained about the declining availability of high-quality wheat and the state's indirect promotion of beer – a “poisonous product” – among the lower classes.¹²⁴

But, with powerful industrial interests working together with U.S. wheat growers and promoters of surplus crops disposal, they would face strong challenges controlling the national discourse about “self-sufficiency,” increasingly defined more

¹²² “Estebán Rico Mejía,” *AT* 10 (October 1959): 686.

¹²³ “Wheat,” *AT* 10 (November 1959): 790-794.

¹²⁴ Hernán Villamarín Gutiérrez, “Una política panadera,” *PC* No. 21 (January 1961): 5-7.

narrowly to refer primarily to agricultural production that supported the nation's industrialization goals. This would marginalize voices such as those of the bakers' association, who lamented, at the end of 1959, that wheat production was dramatically declining in Caldas, having been reduced to just two municipalities, while the areas that used to grow wheat, had turned to barley.¹²⁵

¹²⁵ "Noticias que nos interesan," *PC* No. 20 (December 1959): 23.

CHAPTER 5

“When the Powerful Organizations Convulse”: Artisanal Bakers and their Everyday Interpretations of the State and Economic Development in Colombia, 1960-1962

The cheapest loaves of bread available in Bogotá at the end of 1959 never cost less than one peso, and often much more. But unlike other items of “prime necessity,” such as rice or milk, quantity and quality varied tremendously. Bakers faced a flour shortage and the price of sugar and other ingredients was unstable and on the rise. Some compensated by using more yeast and less flour to produce loaves that appeared similar in size to customers’ previous purchases, but which actually consisted of more air and less protein than in the past.¹ As bread wasn’t sold by weight or volume, it was easy for bakers to trick consumers this way. Others made smaller loaves, but charged the same amount, while still others made the same bread as always, but raised its price. Whatever strategy bakers took, consumers suffered both through higher costs and reduced nutritional levels.

Thus, bread quality was a major point of discussion during a meeting between Enrique Vargas Nariño, the General Manager of the Instituto Nacional de Abastecimientos (INA), a public agency charged with managing the price and distribution of basic food items, and representatives of the Asociación Nacional de Fabricantes de Pan (ADEPAN) in December 1959. Ostensibly focused on the price of

¹ Wheat growers who objected to the bakers’ practice of using primarily imported wheat and flour promoted the idea that Colombian bread consisted mostly of air. Circulating this idea for several years, these growers also suggested that bread made with Colombian flour was more nutritious precisely because it was denser. See, for example, Camilo Leyva Venegas, “Agremiación de cerealistas,” *AT* 17 (January 1961): 59-60.

bakers' raw materials, the two sides reached an agreement in which INA pledged to lower the price of flour by one peso per *arroba* (approximately twenty-five pounds) and ADEPAN pledged to lower the price of loaves by eight cents (falling short of INA's initial request of a ten-cent reduction). This pledge raised a challenge for the representatives of ADEPAN who negotiated the agreement: how could they ensure that their member bakers complied? Quality and price already varied. The danger that some bakers would respond to the reduction in the price they could charge for bread by further reducing quality was high. Some might ignore the stipulation entirely, while still enjoying the reduced cost of their primary raw material. Thus, ADEPAN also pledged to initiate a campaign among its members to ensure compliance.²

The campaign began soon afterward in ADEPAN's monthly magazine, *El Panadero Colombiano* ("The Colombian Baker"). In an editorial discussing the agreement ADEPAN attempted to persuade its members to improve both the quantity and quality of bread available, while keeping prices stable, by appealing to several different ideals they thought their member bakers might value. Profit was certainly one of them – ADEPAN reminded members that "quality wins" and was "the best propaganda for their products and the most efficient system for gaining an edge over competitors." Another was their responsibility as citizens, participants in a social contract among themselves, the public agencies regulating their industry, and the citizenry at large. ADEPAN asserted that INA's request that quality and quantity be maintained was not made arbitrarily or dictatorially. It came, ADEPAN pointed out, as part of a bargain in

² "El pan al peso," *PC* No. 20 (December 1959): 29.

which the government would lower the price of flour – a bargain designed in the end for the good of the nation: “every price reduction that the State makes for the [baking] industry should reverberate to the benefit of the consuming masses.”³

But most important of all, ADEPAN appealed to its members’ sense of class solidarity. This was a slightly complicated appeal, however. On the one hand, the editorial presented Colombia’s bakers as solidly middle class, a group of individuals who had the luxury of being in a position to help others in society. Bakers’ “own will and conscience” (rather than the State’s direction), led them to see their industry “as a social service, as the best way to help the people.” In other words, the very fact that bakers could put social responsibility above profit in order to help others meant that they occupied a privileged position. But at the same time, ADEPAN reminded its readers that the majority of its membership consisted of owners of small-scale, family-run, artisanal bakeries, who needed state protection as much as the many other popular sectors struggling to make ends meet despite the constantly rising cost-of-living. Indeed, ADEPAN argued, it was precisely the fact that these bakers were not among the most privileged social classes that made their commitment to the collective good stronger than it might have been otherwise. As the editorial noted: “We are absolutely certain that we bakers, who have a large dose of social sensibility – well, to an overwhelming majority, we are an artisanal industry – will not oppose this campaign.” Concern for social problems in this case was directly tied to membership in a social group associated with the working- or lower-middle class. The editorial reinforced this

³ Ibid.

when it claimed that although bakers would not oppose the campaign to maintain high quality while charging less for their product, the State should not assume that a one peso per *arroba* reduction in the cost of flour meant that it had “favored” the bakers with the opportunity to “massively increase profits.” Production costs, including those of other raw materials, were still high, and these bakeries were small operations, unable to take advantage of the economies of scale enjoyed by larger, more industrialized bread manufacturers. For that reason, ADEPAN indicated that compliance with the agreement on the part of the bakers required that the price reductions remain in force on both sides: “...as small industries, at the same time as we recognize that we can today take advantage of price reductions for flour, is there a guarantee that these reductions will remain stable and that our costs can be maintained at current percentages?”⁴

Without assurances from INA that flour prices would be maintained, it seemed unfair to ask bakers to offer a loaf of bread for sale for only one peso, a request the agency made, but which ADEPAN rejected. While the editorial suggested that it would be “noble” for bakers to offer one-peso bread for sale, and would certainly help bring down the cost-of-living for the nation’s poorest residents, the author declared that it could only be done after scientific studies of the exact quantity of ingredients and baking methods for such bread had been determined and standardized. Furthermore, bakers could not bear the cost of these studies alone; rather, they would have to be jointly funded by the baking industry and the state. Such studies weren’t enough,

⁴ Ibid.

however. Indeed, for ADEPAN, while a worthwhile long-term goal, they were not a pressing problem. Ensuring that the bakers' sense of social solidarity be rewarded with the recognition that there were powerful forces manipulating public opinion was of much greater concern. ADEPAN emphasized bakers' solidarity with Colombia's poor and working classes, when it indicated that their vision of the baking industry as a social service, which led them to keep prices low, was evident in the fact that bakers did not speculate with bread (as millers did with flour). Proof of this lay in the lack of mass protests about the price of bread. This demonstrated, ADEPAN subtly insinuated, that offering one-peso bread for sale was not as important to Colombian consumers as it was to other sectors hoping to discredit bakers. In other words, the call for one-peso bread was a smokescreen, a method of deflecting the public's attention away from some other issue.⁵

The editorial did not name those sectors that sought to tarnish the bakers' reputation. They were well-known to the bakers, however, and amply discussed in many other articles and issues of *El Panadero Colombiano*. Who were those sectors, and why would they seek to harm the bakers this way? More importantly, why does it matter?

ADEPAN's methods of attempting to convince its membership to honor its agreement with INA raise several intersecting questions about the consolidation of class, nation, and state in Colombia, and the role of economic discourse and neo-imperialism in these processes: What role did Colombia's less well-known and less

⁵ Ibid.

powerful *gremios* (guilds/unions/federations/associations) play in consolidating the state? As they went about defending their economic interests, what vision of the nation did they construct? What were the contours of their class and associational identity and how did they employ them? How did they challenge the national hegemony of more powerful industrial associations and the global hegemony of North American foundations, governmental agencies, and business associations? In short, what can a close examination of one case of “everyday forms of import substitution” tell us about the state, the nation, social classes, and neo-imperialism in Colombia?

The Colombian state is often portrayed as subordinate to the nation’s most powerful agricultural, industrial, and financial interests, owing either to the presence of representatives of the latter on the advisory boards of many state agencies or to their power to dictate economic policy. This presence is described as strongly emerging in the 1920s and 1930s and dramatically accelerating between the 1940s and 1970s. The primary contestation in these descriptions involves conflicts among the large agricultural, industrial, and merchants associations for control over the state’s economic policies, or internal power shifts within an organization along regional lines or sectors.⁶ Although the establishment of many other agricultural and industrial associations during this same period is mentioned, their role in conflicts over state economic policies

⁶ Bejarano, for example, looks at how industrial interests displaced large landowners, Sáenz Rovner and Safford and Palacios discuss the contentious relationship between merchants and industrialists over protectionist policies, and Palacios describes how economic growth reduced the concentration of power in Medellín’s textile company owners, spreading it to Bogotá’s industrialists as well. See, Bejarano, *Economía y poder*; Palacios, *Between Legitimacy and Violence*, 172; Sáenz Rovner, *Colombia años 50*; Safford and Palacios, *Fragmented Land*, 320.

or internal power struggles is rarely discussed or analyzed.⁷ Meanwhile, the relationship between popular sectors and the state is considered, but these analyses tend to focus on labor organizing or mass social protests.⁸

Emphasizing either elite or popular sectors, these accounts of relations between the state and citizens in Colombia broadly focus on either co-optation (by elites) or confrontation (by popular groups). But middle sectors such as the bakers of ADEPAN challenge both of these paradigms. Co-optation assumes that all the contestation happened horizontally, among the elite associations, and ignores the vertical conflicts among business associations with varying degrees of power. Confrontation assumes that civil society and the state do not mutually reinforce or help to construct each other. Considering the impact of violence on civic life in Colombia, particularly among more popular sectors, that the state's violent response to public protest (either directly or through paramilitary forces) reduces both the autonomy of popular sectors and the legitimacy of the state should not be discounted. But violence did not touch everyone in Colombia equally. Middle sectors such as the bakers of ADEPAN did not have the power to co-opt the state's institutions, but neither did they face violent repression. For them, the state remained the legitimate authority with the power to ensure a level playing field among various sectors and business interests. At times they contested

⁷ Ibid. See also, Ocampo, *Historia económica de Colombia*; José Antonio Ocampo and Camilo Tovar, "Colombia in the Classical Era of 'Inward-Looking Development', 1930-1974," in *An Economic History of Twentieth-Century Latin America*, eds., Enrique Cárdenas, José Antonio Ocampo, and Rosemary Thorp (New York: Palgrave, 2000).

⁸ The dean of such studies in Colombia is Mauricio Archila Neira, whose work is deeply informed by personal testimonies and richly reconstructs the formation of social identities among popular sectors. See, Archila Neira, *Idas y venidas; Aquí nadie es forastero; "Los movimientos sociales."* See also, Leon Zamosc, *The Agrarian Question and the Peasant Movement in Colombia: Struggles of the National Peasant Association, 1967-1981* (Cambridge: Cambridge University Press, 1986).

what seemed to be collusion between large industrialists and certain state agencies. They also contested those same agencies' interpretations of economic policies, but the process of arguing with them over those interpretations served to reinforce their subordinate position to the state. In other words, as the now-classic volume on everyday forms of state formation affirms, contestation by the bakers was a constructive process of state-building and of identity formation: as they negotiated the terms of their interactions, the state and the bakers mutually constituted each other.⁹ Contesting the state consolidates it.

Similarly, offering alternative definitions of the state and its economic policies, and one's relationship to them, consolidates one's own group identity. The formation of workers' identities has been examined in Colombian historiography, by looking primarily at their transformation from nineteenth century artisans to twentieth century workers, or from undisciplined rural peasants to disciplined urban laborers.¹⁰ The important role of managers and business owners is highlighted in these studies, in the process creating a dichotomy that overlooks many middle sectors.¹¹ This is particularly unfortunate in the case of the bakers of ADEPAN. Although in the organization's early years (1956-1959) it emphasized the industrial and technical aspects of bread-making in order to present an image of bakers as large-scale industrialists, after 1960 it emphasized the small-scale, artisanal aspects of Colombian bread-production and highlighted the family-run nature of most of the country's bakeries. This was a

⁹ Joseph and Nugent, *Everyday Forms of State Formation*.

¹⁰ Archila Neira, *Cultura e identidad obrera*; Farnsworth-Alvear, *Dulcinea in the Factory*; Mayor Mora, *Etica, trabajo, y productividad*; Sowell, *Early Colombian Labor Movement*.

¹¹ See, in particular, Farnsworth-Alvear, *Dulcinea in the Factory*; Mayor Mora, *Etica, trabajo, y productividad*.

deliberate strategy designed to promote their interests *vis a vis* the state at a time when industrialists and large landowners were often vilified for their greed and called upon to make greater sacrifices for the good of the nation. Yet, the primary study of Colombia's artisans ends in the early twentieth century.¹² United in the nineteenth century, by the early twentieth, they became increasingly differentiated: although "industrial artisans" and "workers" often joined together to create unions, the more commonly-examined process of radicalization that labor unions experienced through the 1930s leaves artisans out of the picture.

But, as ADEPAN demonstrates, they did not disappear. More importantly, they retained a degree of power that workers and peasants did not enjoy. This power manifested itself in an interesting way. Supported by transnational actors, particularly representatives of the Millers Federation of the United States, ADEPAN was able to mount a strong challenge to import substitution policies as defined by Colombia's industrial millers (and the business associations and state agencies that supported them). Although in the end ADEPAN did not succeed in establishing its interpretation of those policies as the hegemonic one, its failure to do so illustrates the contingent nature of the power of transnational or neo-imperial forces in Colombia: in contrast to many post-colonial studies of economic development in Latin America, which assumes that powerful actors from the global North almost invariably succeeded in imposing their vision of economic policies in the global South, the bakers of ADEPAN

¹² Sowell, *Early Colombian Labor Movement*.

demonstrate that the power of transnational actors is much more highly circumscribed than has often been portrayed.¹³

Moreover, ADEPAN itself, separate from its North American allies, challenges the presumption that national governments, transnational NGOs, or World Bank economists unilaterally impose discourses of economic development. In these formulations, planners and economists in offices in New York, Washington, or Bogotá decide the best economic path a country should take, and then impose projects aligned with that economic vision on indigenous groups or poor farmers. Sometimes those indigenous groups or farmers resist those projects and develop an alternative vision of economic development. But, these alternatives often focus on their own community, rather than the government's overall economic policies.¹⁴ ADEPAN, on the other hand, challenged the state's policy of import substitution, a challenge with strong consequences for many different sectors, rather than just their own. In this regard, the concept of "everyday forms of state formation" is useful as a framework of analysis. As that volume demonstrated, non-state actors played an important role in constituting the state. The same can be said for economic policies. Economists did not have a monopoly on how economic policies would be interpreted and implemented.

This chapter examines one case of "everyday forms of import substitution" by following the bakers of ADEPAN between 1960 and 1962, a period when the power of industrialists and large landowners was being called into question, as the country debated the possibility of agrarian and labor reforms. Closely following these bakers

¹³ Babb, *Managing Mexico*; Dezalay and Garth, *Internationalization of Palace Wars*; Escobar, *Encountering Development*.

¹⁴ Escobar, *Encountering Development*; Gow, *Countering Development*.

through their publication, *El Panadero Colombiano* (published monthly, although with some gaps, occasionally long ones), the chapter first outlines the conflicts between the artisan bakers and the industrial millers, conflicts which involved state agencies, particularly INA. Then, the chapter examines the construction of an associational identity, which attempted to finely balance one portrayal of the bakers as small-scale, socially conscious artisans with another portrayal of them as light manufacturers, with enough employees that they merited a space at the table of industrial negotiations. The difficulties of balancing these two images became apparent following accusations that the bakers were receiving funds from abroad, thus belying their claims that they were simply artisans. Although the bakers vigorously denied this, the subsequent section of the chapter demonstrates that the relationship between ADEPAN and the Millers Federation of the United States was very close through a detailed examination of the various articles, news items, and promotional materials supplied to ADEPAN by the Millers' Federation, as well as the release of a report on Colombian flour consumption jointly produced by the Millers' Federation and the USDA (which strongly supported the bakers claim that flour milled in Colombia was of poor quality and the country would be better served by importing flour rather than grain). The final section argues that in the end, this support did not make a difference, as ADEPAN still struggled to convince INA to support their perspective on import policies, while INA continued to implement policies that favored millers.

Ninety Millers versus One Million Wheat Growers

Judging by the number of complaints coming from various quarters, December 1959 must have been a challenging month for both Colombia's millers and the directors of INA. One of them came from the Sociedad de Agricultores de Colombia (SAC), the nation's oldest agricultural association and traditionally the public face of large landowners.¹⁵ In an editorial reviewing agricultural production in 1959 they devoted most of their attention to wheat. Harvests were good, in spite of bad weather and the ongoing encroachment of barley production for the beer industry. But wheat farmers still suffered significant financial losses. The SAC blamed millers and INA for this, claiming that the problem was their lack of adequate drying equipment. Dryers were important everywhere, but especially so in Colombia; with two rainy seasons, harvested grain almost always arrived damp to its point of sale. Only a few of the largest millers had dryers. None of the smaller ones did. Within a few days after harvest began, most of the large mills had purchased all that they could store. Thus, only the very first farmers to arrive were able to sell their harvests at a good price. Everyone else was forced to sell at lower prices. Millers without dryers would not accept damp wheat, and thus, farmers had to sell to intermediaries who offered less from the outset and then cheated them by adjusting scales. Moreover, they rarely paid in full, but rather, in

¹⁵ Bejarano, *Economía y poder*. For example, the list of powerful public and private agencies or corporations that had a member of the SAC on its board, included the Banco de la República, the Junta Nacional de Aduanas, the Caja de Crédito Agrario, Industrial y Minero, and Ferrocarriles Nacionales. See, Bejarano, 215-216.

installments, a problem for farmers whose creditors started demanding payment shortly after harvest.¹⁶

Millers were not solely to blame, however. Negligence on the part of INA played an equally important role. INA's purpose, according to the SAC, was to protect basic commodities such as wheat, by ensuring a level playing field among producers, buyers, and sellers, and thus guaranteeing an adequate supply at prices even the poorest Colombians could afford. But the SAC found INA's efforts to protect this crop "weak and disconcerting." It was a timid criticism, however. Rather than laying the blame at the top, the SAC asserted that INA's directors were "well-intentioned," but its "low-level employees haven't understood the meaning of actively defending producers."¹⁷

The agronomists of the Asociación Colombiana de Ingenieros Agrónomos (ACIA) pulled less punches. Countering claims that there was overproduction of wheat in Colombia, ACIA offered halfhearted praise for INA, declaring that it had helped to "partly alleviate" the problem of millers' refusal to purchase farmers' wheat harvests, although without specifying how it had done so. That feeble praise was followed by condemnation. While the lack of drying and storage facilities was indeed problematic, it was only symptomatic of a much larger issue. Disturbingly, according to ACIA, its roots lay firmly in INA's hands. The agency charged with protecting the nation's wheat growers did the exact opposite; rather than purchasing imported grain during Colombia's growing season, it seemed to wait every year until it was harvest time. Thus, when Colombian farmers attempted to sell their wheat, the storage facilities of

¹⁶ Rafael R. Camacho, "Para dónde va la agricultura colombiana?" *RNA* 53 (December 1959): 5-6.

¹⁷ *Ibid.*

both INA and the milling companies were already full – but not with nationally produced grain. This was unacceptable, according to ACIA: “The space occupied by these shipments is storage space stolen from our own grain.” Thus, ACIA argued that there was absolutely no “overproduction” of wheat in Colombia, as some had claimed:

To speak of overproduction of cotton is to lack vision. To assert that there is overproduction of potatoes is an effrontery. But to say that there is overproduction of wheat is either a complete lack of awareness, an inexcusable gaffe, or a defense of obscure interests.¹⁸

Strong as these complaints were, they also reflected differing interpretations of the meaning of economic protection and of how INA was to balance its potentially contradictory objectives. After all, INA could easily argue that it was fulfilling its mandate of guaranteeing that flour was available at a reasonable price for consumers by ensuring that imported supplies were in abundance. Protecting farmers, although also part of its mandate, would have to take a back seat.¹⁹ Obviously, the SAC and ACIA saw this differently. For them, defending farmers was equivalent to defending the nation and its economy -- Colombian consumers would not suffer from a lack of affordable bread if national wheat was purchased before imported wheat but this would ensure that Colombian farmers did not suffer economic hardship. Thus, two important sectors of Colombian society and economic life would benefit by adopting the protectionist policies espoused by the SAC and ACIA.

ADEPAN also claimed that INA played an important role in the problems Colombia’s wheat farmers faced. Its interpretation differed, however. In December

¹⁸ Juan Orjuela Navarrete, “¡Superproducción!” *AT* 15 (December 1959): 837-838.

¹⁹ “Conozcamos los objetivos legales del ‘I.N.A.’ y su organización,” *PC* Nos. 24-25 (May-June 1960): 35-36.

ADEPAN reported that millers in Nariño were refusing to accept wheat harvests. Farmers' only recourse was to rely on INA to purchase their grain or the Caja Agraria to offer them enough credit to pay their bills while they waited for storage space to become available in millers' warehouses. The long-term consequences were dire: in spite of the great advances made by the Ministry of Agriculture in developing improved seeds suitable for Nariño's climatic and soil conditions – something ADEPAN lavishly praised that same month – production there would likely decline, since farmers had no incentive to continue growing something that they could only sell at ruinous prices, if at all.²⁰

In this, ADEPAN's criticisms of INA did not differ substantially from that of the agronomists and farmers of ACIA and the SAC. But by the following month, ADEPAN had added a new dimension to its critique. This grew from insinuations that ADEPAN equally contributed to the problems of wheat farmers – insinuations evident in its subtle, but vigorous defense of the bakers whom INA had “obligated” to purchase all of the imported flour that had recently been shipped to the country. Considering how strongly and consistently ADEPAN had ask INA to increase flour imports over the previous four years, it was disingenuous to then claim that INA was forcing bakers to use that imported flour, but doing so portrayed ADEPAN as inculpable in the chain of blame. After all, one interpretation of the issue was that if millers were not purchasing national harvests because their warehouses were full, the problem actually lay with their customers, who were not purchasing their flour and thus prolonging the time that

²⁰ “Noticias que nos interesan,” *PC* No. 20 (December 1959): 23; “Los esfuerzos trigueros de ‘Tibaitatá,’” *PC* No. 20 (December 1959): 30-31.

imported grain sat in their storage spaces. The logjam, therefore, was not the millers, but the bakers. And why didn't they buy the flour millers produced? For ADEPAN's critics championing this interpretation, the answer was simple – the bakers preferred to use imported flour.²¹

ADEPAN countered with a similarly simple explanation: the mills “prefer to grind American grain” and “INA obliged bakers to absorb the imported flour that it was distributing.” Combined, these two phenomena “paralyzed the market for national flour.”²²

But considering ADEPAN's consistent calls for imported flour, why would millers' preference for imported grain be a problem for bakers? Several articles in *El Panadero Colombiano* praised the quality of the wheat produced in the U.S., after all.²³ Presumably, flour made from that grain would be of similar quality, whether it was produced closer to its point of origin, or farther away, in Colombia. This was not the case, however. ADEPAN repeatedly criticized the quality of the flour that Colombian mills produced using U.S. grain. Millers over-ground it, they claimed, producing flour containing residues and particles that affected the quality of bread. Although bakers had complained about this for some time, millers refused to alter production processes. ADEPAN slyly hinted that this was simply due to greed: Colombian “mills can offer

²¹ “Noticias que nos interesan,” *PC* No. 21 (January 1960): 14-15.

²² *Ibid.*

²³ “Que es el gluten...? Proteínas,” *PC* No. 21 (January 1960): 11; “El ‘Dark Hard Winter’, el mejor trigo del mundo,” *PC* No. 30 (December 1961): 16. On the very same page of that same issue, another short item appeared, which claimed that Colombia's wheat requirements had been calculated at 340,000 tons, but it was only producing 150,000. Thus, Colombia had to make up the difference through imports, “preferably from the United States,” but there were also proposals to trade coffee for wheat from the Soviet Union. See, “Noticias que nos interesan,” (January 1960), *op. cit.*

flour [brands] almost as good as the imported [ones] but they know why they don't do so – they squeeze everything they can out of the grain.”²⁴

Under such circumstances, for the bakers of ADEPAN the flour that best made the kind of bread that Colombians preferred was a mixture of imported and “national” flours – the latter being flour produced in Colombia using national grain. ADEPAN claimed that national flour was “weak” and didn’t absorb water very well, while U.S. flour was “too strong” and couldn’t be used on its own to make the soft rolls and baguette-type breads most commonly consumed in Colombia. Mixing a small amount of U.S. flour with a larger amount of national resulted in flour perfectly suited to Colombian bakers needs. Thus, ADEPAN responded to the criticism that it preferred U.S. flour by demonstrating its solidarity with the nation’s wheat growers:

The stronger the imported flour, the larger the quantity of national flour it requires for a good mixture, and for that reason, farmers should view the highest quality imported flour as wheat production’s best ally, and in contrast, flour produced nationally with American grain as its greatest threat: these flours do not mix well with national flour – in fact, they are only slightly better than national flour, and being that they have the same price, end up displacing it from the market.²⁵

In light of the benefits of this mixture, ADEPAN’s statement that INA obligated them to purchase imported flour seems contradictory, but actually makes perfect sense. Required to spend their cash on imported flour, they had none left to purchase national; if millers would mix national and imported according to the bakers’ specifications, then they would be in a much better position to support the nation’s wheat growers. But “anarchy” in the marketplace, caused by INA and the millers, meant that Colombia

²⁴ “El problema de los trigueros,” *PC* No. 21 (January 1960): 26, 28.

²⁵ *Ibid.*

faced the ridiculous situation of having “more than 40,000 tons of national wheat unable to be sold.... at the same time as the country experiences a huge wheat deficit.”²⁶ The figures ADEPAN cited came from statements by Rafael R. Camacho, a member of the SAC’s Cereal’s Committee. Citing him increased the impression that they acted in solidarity with the nation’s wheat farmers and agreed with the interpretation of economic protection expressed by the SAC and ACIA. This further served to heighten the contrast with the nation’s millers, portrayed in these statements as caring only for themselves and their bottom line, at the expense of the nation.

Millers apparently did not sit idly by and let these criticisms circulate without rebuttal. Moreover, turning the tables and claiming that bakers actually caused the backlog in their warehouses was not their only response. They also disparaged the quality of bread, and its price. As one observer noted: “...our housewives frequently complain, and rightly so, about the daily bread that they and their loved ones have to eat. It is small, hard, and expensive...”²⁷ ADEPAN acknowledged that some bakers were shoddy and that they all needed to pay attention to constantly improving their manufacturing processes.²⁸ But if bread was bad, they responded, it was mainly due to the poor quality of the primary raw material. Once again aligning themselves with the nation’s wheat growers, ADEPAN claimed that there used to be a time when Colombia was self-sufficient in wheat. This was no longer the case, for several reasons. Rural violence encouraged people to leave farming and head to the cities. Beer monopolies

²⁶ Ibid.

²⁷ Elena Nieto Cano, “‘La calentura no está en las sábanas’ (Tomado de ‘El Espectador’):” *PC* Nos. 22-23 (February-March 1960): 19.

²⁸ “El pan al peso,” *op.cit.*; “Noticias que nos interesan,” (January 1960), *op.cit.*

earned huge profits spreading barley production where wheat used to be cultivated (and in the process “feeding the vice of alcoholism”). Barley farmers also received protection (in the form of guaranteed prices) that the State did not offer to wheat farmers. Seeds and soils had only recently begun to be improved. And national flour brands had decreased in quality while foreign ones, particularly from the United States, had improved.²⁹

Changing this situation required better protection of wheat farmers and more attention to improving the quality of their crop. Unfortunately, this was not happening and millers were partly to blame. Fighting any efforts designed to increase how much national flour they used, millers ensured that the supply of imported grain never diminished.³⁰ This had a pernicious effect on national wheat production, according to ADEPAN. As it argued elsewhere that month, only imported flour could be combined with national flour to make good bread. National flour made from imported grain could not be mixed with either one to improve its quality. The result, as ADEPAN put it, was that: “the more imported wheat there is, the less national wheat is consumed.”³¹

At stake was not just the quality of bread or the future of the baking industry; for ADEPAN, this went to the very heart of the idea of protectionism and national self-sufficiency. ADEPAN defined both of these goals as more than simply substituting

²⁹ Hernán Villamarín Gutiérrez, “Una política panadera,” *PC* No. 21 (January 1960): 5-7.

³⁰ Distribution of national wheat was organized along regional lines. INA had divided the country into two zones: the wheat-producing one and the non-producing one. Millers in the wheat-producing zone were required to absorb all of the national production, while those in the non-producing zone did not have to absorb any at all. This was largely due to the costs associated with transporting wheat from the central highlands where it was produced, to the markets on the coast, and in late 1959 led to a split in the millers national association. A group of millers in the producing zone broke off from the Asociación de Molineros (ASEMOL) and established an organization that better served their interests, the Asociación de Molineros de la Zona Productora (ASEMOLPRO). See, “Asociación de Molineros de la Zona Productora,” *PC* No. 20 (December 1959): 25.

³¹ Villamarín, “Política panadera,” *op.cit.*

imported goods or materials for domestic ones. Ensuring that the benefits of protectionism were distributed equally among different economic sectors, large and small, should be at the core of the state's protectionist policies. They declared, for example, that "it was of utmost importance to define which protectionist policy was better (assuming that they are mutually exclusive): protection for the country's ninety millers or protection for a million wheat growers?"³² Although they recognized that INA's desire that national flour be consumed was "just and patriotic," they ultimately believed that any policy regulating wheat should harmoniously balance the needs of bakers, millers, and farmers – and that asking bakers to purchase both imported flour and that produced nationally from imported grain did the opposite: it created a "false market" and lay all the burden on their shoulders (or wallets). As they noted: "The major preoccupation of the government and of INA has been protecting wheat production, which truly represents national wealth, and all of us Colombians share this desire for self-sufficiency, even though we have our doubts that the methods used [to achieve it] are the best ones."³³

That everyone in the wheat industry needed to make sacrifices to achieve national self-sufficiency in wheat while improving the quality of bread was evident in ADEPAN's acknowledgement that bakers needed further training. In January 1960 ADEPAN announced that the baking school it had been working to establish in collaboration with SENA – the Servicio Nacional de Aprendizaje, a national vocational training school for adults – would soon be operational. This would help to ensure that

³² Ibid.

³³ Ibid.

bread quality constantly improved.³⁴ But that same month (in fact, on the same page of short news items), ADEPAN reminded readers that quality bread was dependent on quality raw material. Without directly attacking Colombian millers, ADEPAN reinforced its assertion that the former was producing poor-quality flour when it noted that “baking was a science,” one in which “more advanced countries than ours” were continuously improving production processes and raw materials. One of the most recent advances involved milling processes: “It is certain that very soon, milling systems will be able to produce singular flours for every purpose, with exact percentages of protein and gluten, at reasonable prices considering their high quality. With every passing day, man further overcomes nature.”³⁵

By evoking the perceived impartiality of science, ADEPAN slyly reinforced its accusation that millers were to blame for the poor quality of bread. Combined with its other subtle (or not-so-subtle) and repeated attempts to contrast the elevated aims of bakers concerned about the welfare of a million wheat growers with the baser aims of a much reduced group of greedy milling industrialists, ADEPAN labored to construct an image of itself as more worthy of state protection. This is an image echoed in the contrast it drew between itself and the smaller group of industrial bakers, a contrast discussed in the next section.

³⁴ “Noticias que nos interesan,” (January 1960), *op. cit.*

³⁵ *Ibid.*

The Bakers Come of Age

As INA's authorized distributor of imported flour, ADEPAN gave preferential rates to affiliated bakers, thus encouraging them to join the organization. But that was clearly not the only reason that its membership grew rapidly in the late 1950s – imports were not steady during those years of coffee bust and economic crisis and at various times INA gave distribution authority to other entities or to flour mills. Nonetheless, ADEPAN's membership grew from 450 affiliates in March 1958 to 700 by June 1959.³⁶ Most were located in Cundinamarca. In July 1959, eighty-six of them met to establish a regional chapter, setting dues and electing Hernán Villamarín G. chairman of the chapter's Board of Directors. With the dues, the chapter intended to establish a cooperative organization, Adepósitos, S.A., that would help supply members with the essential material and machinery for their bakeries at a reduced cost. Thus, a crucial first task was encouraging other ADEPAN affiliates in Cundinamarca to join, but a major obstacle presented itself almost immediately. Only a handful of ADEPAN's affiliated bakeries were large-scale, industrial operations and most of them were located in or near Bogotá. Their larger scale of operations would have allowed Adepósitos to make larger bulk purchases of material and equipment, lowering the cost for everyone. But, the same month that the chapter began, twenty of those larger bakeries separated from ADEPAN and established their own association – the Federación de Industriales de Panificación (FIP – the Federation of Bread-Making Industrialists). Although FIP and ADEPAN remained on cordial terms – the latter received a representative of the former

³⁶ "Noticias breves," *PC* No. 18 (April 1959): 4.

as a special guest at ADEPAN's Seventh National Congress the following February, for example – this negatively affected the new Cundinamarca chapter by both reducing the number of potential members and the amount of materials that it could purchase.³⁷

Nevertheless, the defection of Bogotá's industrial bakers was not a mortal blow to the Cundinamarca chapter. By September, membership had increased to 107 affiliates and by January 1960 stood at 139. Many had yet to pay their dues by that date, but Villamarín was still optimistic about the chapter's future growth and impact.³⁸ Moreover, the establishment of FIP enabled ADEPAN to begin consolidating its image as an association of small- or medium-sized businesses. This mattered at a time when industrialists and large landowners were often publicly criticized for being selfishly unconcerned about the welfare of the nation. Ignoring poverty and massive inequality, they were accused of jeopardizing the nation's social and economic future. As the previous chapter noted, President Lleras Camargo himself called for greater sacrifice on the part of the country's industrialists in his August 1958 inaugural speech. Two years later he repeated this admonition during his speech at the installation of the new congressional session. Discussing the relationship between the state and private enterprise, he asserted that in a developing country it made no sense for the state to constantly threaten to redistribute wealth by appropriating private property or

³⁷ "Informe del Director de la Seccional," *PC* No. 21 (January 1960): 20-21; "Vista parcial de los asistentes al Congreso" (photo caption), *PC* Nos. 22-23 (February-March 1960): 33. FIP representatives attended the General Meeting of the Cundinamarca chapter in April 1961 as well. ADEPAN eloquently praised their presence (as well as some unaffiliated bakers from Boyacá and Meta), while hinting at the divisions between the two organizations by noting that it was exciting to see "the baking family forgo selfishness" and think only about the future of their industry. See "'ADEPAN' Seccional Cundinamarca – Sus Asambleas Generales – Informes y Actividades – Informes de la Junta Directiva," *PC* Nos. 26-27 (May-June 1961): 48-51.

³⁸ "Informe del Director," *op cit.*

nationalizing companies and services, as this frightened investors and slowed down economic growth. But, he noted,

...at the same time, it is essential to demand more intense, active, and generous solidarity from the more fortunate economic classes... There are sectors that not only show indifference, but hostility to any such request. Others make an uproar and create deliberate confusion at the suggestion of any official measure that might affect the ownership of their unlimited and sometimes abusive amount of personal property.³⁹

Although Lleras Camargo's comments came at a time when Congress was discussing the possible implementation of an agrarian reform program, designed to reduce the inequitable concentration of land in Colombia, industrialists were not excluded from condemnations of unfairly monopolizing wealth and power. Thus, for ADEPAN, presenting itself as an association of small, family-based businesses selling one of the country's most basic food items seemed a promising strategy for gaining the attention and favor of the various state agencies that regulated their industry.

This was particularly important considering their often-strained relations with the nation's millers – the suppliers of their primary raw material, and a much more powerful group of industrialists. While no bread baking companies were represented on the boards of the various regional chapters of the Asociación Nacional de Industriales (ANDI – National Industrialists' Association) when it was established in 1944, three different milling companies were: Compañía Harinera Antioqueña in Antioquia, Industria Harinera S.A. in Bogotá, and Molinos Roncallo in Barranquilla.⁴⁰ Sixteen years later, Alberto Roncallo Vilar, the co-owner of Molinos Roncallo, was still a

³⁹ Lleras Camargo, "Instalación del Congreso," in *Primer Gobierno Frente Nacional, Tomo segundo*: 451-486, 482-483.

⁴⁰ Sáenz Rovner, *La ofensiva empresarial*. Board members included Jesús Mora in Antioquia, Salvador Camacho Roldán and Roberto Venegas in Bogotá, and Alberto Roncallo Vilar in Barranquilla.

principal board member of ANDI's Barranquilla chapter. Employing over one hundred unionized workers, in 1960 the mill produced 1,500 tons of flour a month.⁴¹

Flour speculation by milling companies, a serious problem in the late 1950s (discussed in a previous chapter), apparently evolved in 1959 into an attempt to destroy the baking federation itself, at least in one region of the country. Although sparse on details, ADEPAN reported that at the end of 1959 the millers of Medellín tried to "wipe out" its section in Antioquia, and it was only by "launching a major battle" against them that the bakers there were able to save it.⁴² Working together, the bakers not only staved off the millers, but also eliminated all the other intermediaries whose interventions and market manipulations helped raise the price of their basic raw material and the other ingredients they required to make bread. They did this by forming a cooperative organization with some similarities to Adepósitos. Unlike in Cundinamarca, however, an overwhelming majority (95%) of Medellín's bakers joined the "Cooperativa de Adepán - Coopán."⁴³ More importantly, both large- and small-scale bakeries came on board. Large bakeries, in fact, were applauded for generously contributing so much more than their smaller counterparts, thus helping the entire industry in their city. Fernando Mejía, the Manager of Coopán and the Director of ADEPAN's Antioquia chapter, lavishly praised both the large- and small-scale bakeries during his speech at a chapter meeting in January 1960:

⁴¹ *Atlántico 50 años: Un homenaje al departamento del Atlántico en el primer cincuentenario de su fundación* (Medellín: La Corporación Cívica de Barranquilla, 1960), unpaginated. For comparison, in 1963, Archer Daniels Midland Co., the sixth largest flour milling company in the U.S. at the time, had an average milling capacity of approximately 17,550 tons a month at each of its four mills. See Herman Steen, *Flour Milling in America* (Minneapolis: T.S. Denison & Company, Inc., 1963), 265.

⁴² "Nuestras seccionales ADEPAN; Antioquia," *PC* No. 20 (December 1959): 18.

⁴³ "Nuestro mundo social; Homenaje en Medellín," *PC* No. 20 (December 1959): 6.

While other similar organizations devolve into anarchy due to the internal struggle over factional interests, from the start our Cooperative overcame this distressing difficulty and eliminated the distinction between large and small, between the powerful and the weak. They have spontaneously agreed to mutually assist each other, and grown collectively stronger by coming together. And it has been precisely the economically strongest who have been faithfully motivated by the highest spirit of service, by a tremendous willingness to serve those in greater need.⁴⁴

The contrast between ADEPAN's experiences forming baking cooperatives in Medellín and Bogotá was indeed stark, but the description of it in *El Panadero Colombiano* ultimately served not to highlight the organization's internal differences, but rather, the larger ones between itself and industrialized millers and bakers. Its strategy for doing this was somewhat contradictory, however. One on hand, it demonstrated their differences by highlighting the various ways that industrial organizations and governmental entities took the bakers' association seriously. When ADEPAN took steps to create its baking school, for example, it noted with pride that it had received praise and promises of collaboration from a variety of industrial and governmental entities, including ASEMOL, INA, Fleischmann, and ASEMOLPRO, a newly created association of millers in the wheat producing regions.⁴⁵ Similarly, ADEPAN reported that it had received an inspirational letter from Douglas Botero Boshell, the manager of ASEMOL, praising the baking association for the quality of *El Panadero Colombiano*, claiming that it

⁴⁴ Fernando Mejía, "Una obra que honra a 'ADEPAN': La Sección de Antioquia ejemplo de espíritu gremial y fraternidad panadera," *PC* No. 21 (January 1960): 8-9.

⁴⁵ Antonio F. Araujo, "Por una escuela de panificación," *PC* No. 20 (December 1959): 27; "Mensajes que nos estimulan," *PC* No. 21 (January 1960): 9. At approximately the same time in mid-1959 that the bakers association split into two groups along class lines, the millers association split into two groups along regional lines. INA and the Ministry of Agriculture had divided the country into two wheat zones: the productive and the non-productive one. The productive zone had much more onerous requirements as far as absorption of nationally produced wheat, and this obviously created friction and meant that the economic interests of the two groups of millers were not aligned. See, "Asociación de Molineros de la Zona Productora," *PC* No. 20 (December 1959): 25; "Noticias que nos interesan," *PC* No. 20 (December 1959): 23.

would be useful and interesting not only for the association's members, but also for the public at large.⁴⁶ These milling and baking-related entities also sent greetings to ADEPAN when it held its seventh national congress in Medellín in February 1960. They were joined, ADEPAN noted with satisfaction, by several important governmental representatives, including Alberto Lleras Camargo, the President of Colombia, Gilberto Arango Londoño, the Minister of Agriculture, and Enrique Vargas Nariño, the General Manager of INA.⁴⁷ Dramatically demonstrating the differences between itself and these other organizations in a more tangible way, ADEPAN noted that representatives of FIP and INA had been "guests of honor" at its National Congress in Medellín.⁴⁸ Proudly showcasing the powerful individuals, companies and governmental agencies that sent congratulations during the Seventh Congress emphasized ADEPAN's subordinate status, declaring that, while it may have a place at the table of the country's large and powerful organizations, it was only there because those same powerful organizations had deigned to grant it space.

Other concrete manifestations of the power differentials at play came in a year-end activities and achievement report by Jaime Angel Villegas, ADEPAN's National Director, published in the December 1959 issue. Internal ones, such as the establishment of regional chapters throughout the country and the collection of funds to set up a national supply cooperative, accompanied external improvements in ADEPAN's relations with various governmental entities and representatives. Most significant was

⁴⁶ "Una carta que nos estimula," *PC* No. 20 (December 1959): 8.

⁴⁷ "Mensajes al VII congreso de 'ADEPAN,'" *PC* Nos. 22-23 (February-March 1960): 29.

⁴⁸ Luís A. Rodríguez, "Informe de la Junta Directiva Nacional," *PC* Nos. 22-23 (February-March 1960): 32-33.

INA. "Cordiality and cooperation" had begun to characterize relations between INA and the bakers association, with the former directly learning the latter's point of view through a round table attended by "the highest authorities of the State." Consequently, the Minister of Agriculture had appointed representatives of ADEPAN to a committee examining the problems of national wheat production and fair and equitable distribution of imported grain.⁴⁹ Even more significantly, INA re-authorized ADEPAN as the distributor of imported flour. Doing so had already brought down the cost of flour, ADEPAN claimed.⁵⁰

The cumulative effect of these statements and reports was to highlight ADEPAN's subordinate position to these more powerful organizations and agencies, while simultaneously demonstrating that it was itself powerful enough to not only merit their attention, but to also be granted attendant rights and obligations. Angel Villegas directly and eloquently expressed this dual position in his January 1960 exhortation to ADEPAN's membership that they attend the upcoming National Congress. That the organization's bylaws stipulated that at least two members of each chapter had to be present at National Congresses and the "traditional hospitality" of the Antioqueños organizing it guaranteed a fabulous meeting were only the most basic reasons that members should attend, he argued. More importantly, ADEPAN was at a crucial stage of its organizational development. It had been around long enough that the membership needed to review its achievements, but still young enough that it also needed to evaluate them, in order to continue to grow and become an even stronger

⁴⁹ Jaime Angel Villegas, "Un informe de realidades," *PC* No. 20 (December 1959): 5.

⁵⁰ "Noticias que nos interesan," (December 1959), *op. cit.*

voice representing the nation's bakers. In other words, as Angel Villegas put it, "we could say that [at the Congress] in Medellín, the bakers' association will be recognized as having reached maturity, as if it were grown up enough to have a citizenship card."⁵¹ The metaphor of youth and immaturity inherently suggest a relationship with a strong power differential. Angel Villegas reinforced this when he described how ADEPAN's relations with the government had evolved:

In effect, both INA and other government agencies with which ADEPAN has permanent relations focused on business and general policy, in order to maintain prices and the supply of raw materials, accept us as equals and our points of view are heard, discussed, and studied, case-by-case, with close attention.⁵²

Thus, ADEPAN illustrated the nature of its relationship with INA and the government in general – in the past the bakers could not automatically expect that the government agencies regulating their industry would even listen to them, let alone take their point of view into consideration. It was a supplicant, subordinate to a more powerful institution, able only to hope that its perspective was heard and problems understood. But, as the organization had grown, so had its power. The lopsided relationship had disappeared, replaced by a more equitable one, in which it had guarantees that its perspective and problems would be not only considered but studied carefully. This made it similar to the larger and more powerful industrial and commercial concerns, which were confident that the government would give serious consideration to their problems and points of view. Presenting this image of the organization helped ensure that member-bakers continued to pay their dues (and

⁵¹ Jaime Angel Villegas, "El VII Congreso Nacional de Panaderos," *PC* No. 21 (January 1960): 13.

⁵² *Ibid.*

encourage non-members to join), as it seemed to be an agency capable of solving their problems.

But, there was danger in this strategy. Perception was one thing, but did not change the fact that ADEPAN still consisted mainly of small (often home-based) manufacturers. Being perceived as a powerful association could work against the bakers at a time when large landowners and industrialists were being publicly asked to adjust their sense of entitlement and make some sacrifices for the good of the nation. Thus, ADEPAN needed to walk a fine line between its image as an association with growing power and one consisting of small-scale industrialists who still needed state protection from larger industrialists. This it did through a series of statements and reports that seemingly contradicted the previous ones, either by highlighting the small-scale nature of its members' businesses or pointing out moments when its voice was ignored.

For example, in December 1959, ADEPAN reported that Francisco Montoya, a member of its board of directors, had been named National Director of the Asociación Colombiana de Pequeños Industriales (Colombian Association of Small Industrialists – ACOPI).⁵³ Calling this “profoundly significant for ADEPAN,” it located the bakers squarely with the rest of the country's small businesses and industries. Montoya's appointment was a positive reference to the small-scale nature of bread production in Colombia and ADEPAN's limited power *vis a vis* larger industrial associations and the state. Other references were far more negative.

⁵³ “Nuestro mundo social,” *PC* No. 20 (December 1959): 6.

Speculation had once again become a serious problem. Bakers complained that flour couldn't be bought through legitimate sources. Illegitimate ones were another story, however. As ADEPAN noted: "while flour supplied directly from the millers or INA is unavailable, huge quantities are available on the black market, generally at exorbitant prices."⁵⁴ ADEPAN did not hesitate to accuse the millers of nefarious activities designed to drive up the price of imported flour, declaring that the "excessive speculation" – which victimized bakers more than anyone else – was "caused largely by...the policy of irresponsibility that characterizes the millers' association."⁵⁵

Hoping to combat this speculation, in January 1960 ADEPAN sent a letter to INA requesting not only that it once again grant the bakers' association the authority to distribute imported flour, but that it take such flour off the commercial market entirely. Even more dramatically, ADEPAN wanted INA to decree that all imported flour not in the hands of the nation's bakers be declared "contraband."⁵⁶ By removing millers from the distribution channels entirely, ADEPAN believed that prices could be kept under control and shortages would cease.

The tone of ADEPAN's letter suggests that the bakers firmly believed that INA had the power to correct this problem. They seemed less confident of INA's willingness to do so. Declaring that these changes would free bakers "once and for all" from millers' speculative practices, it pushed INA to fulfill its duties by acceding to ADEPAN's

⁵⁴ "Declaración de principios del VII Congreso: 'ADEPAN' fija su política al estado," *PC* Nos. 22-23 (February-March 1960): 31-32.

⁵⁵ *Ibid.*

⁵⁶ Jaime Angel Villegas, "Carta económica" (text of a letter from Villegas, ADEPAN's National Director, to Enrique Vargas Nariño, Director of INA, dated January 22, 1960) *PC* No. 21 (January 1960): 2.

request, pointing out that doing so would help farmers and consumers as well.⁵⁷

Nevertheless, this appeal ultimately fell on deaf ears.

The following month, at its Seventh National Congress in Medellín, a firestorm of criticism and complaints came from almost every delegation around the country. Dubbed “the Flour Crisis” in the official report of the Congress, INA was the primary villain. A commission was established to write a policy statement addressing the crisis. Seven members representing different parts of the country met separately and after much discussion produced a statement that was accepted at the Congress “without comment.”⁵⁸

Better protection for the nation’s wheat farmers was first on its list of policy goals. Imported flour and grain were not those farmers’ principal problem, however; the inequitable implementation of agricultural protection was of greater concern. For ADEPAN, the protection granted to “the beer monopoly” was unjust. Accusing the State of promoting alcoholism, at the expense of the nation’s health and nutritional well-being, it marveled at the perversity of a policy in which “...wheat and bread, humanity’s basic food and hence, logically, the primary food industry of the Colombian people, are not protected.” While defending wheat growers seems natural – they were bakers, after all, and it is unsurprising that they would contrast the nutritional benefits of bread with the pernicious effects of beer consumption – there was also political calculation in this contrast. Discussing beer evoked the differences between small-scale artisan bakers looking out for the public good and large-scale industrial beer producers

⁵⁷ Ibid.

⁵⁸ “El séptimo congreso nacional de ADEPAN,” *PC* Nos. 22-23 (February-March 1960): 26-28.

colluding in monopolistic practices to fatten their wallets. That these small-scale bakers did not enjoy the powerful privileges of large industrialists such as the beer producers was made more explicitly (and angrily) evident in another policy demand, focused on INA:

As representatives of 85% of the bread production in the country, and as an industry intimately linked to national consumption, we demand that we be allowed to directly intervene in INA's wheat and flour policy – as this is the only way that said entity will accept and implement the fair measures that bakers and Colombia's consuming public demand – after all, it's well-known that when the powerful organizations convulse, the State helps them out, but not so when the rights and the wages of the people and of the small industrialists such as the bakers are at risk.⁵⁹

While such a statement may seem hyperbole, ADEPAN did have a concrete grievance against INA, specifically, the latter's rejection of ADEPAN's January request for greater control over the distribution of imported flour. Although it did not single out INA in a follow-up letter to that agency the subsequent month, it repeated the charge that bakers were harmed by official indifference to the plight of the nation's small businesses: "We can only conclude that the lack of State intervention and exaggerated protection for the milling industry, has produced the country's artificial flour scarcity and attendant speculation."⁶⁰

Official indifference could not continue, however. Unless the state took action, ADEPAN's directors warned, a disaster was imminent – flour shortage and high prices would force 80% of the nation's bakeries to close. But a return to the old system – in which bakeries received special licenses to purchase imported flour from INA and

⁵⁹ "Declaración de principios," *op. cit.*

⁶⁰ "Carta económica: Otra suplica al INA," (text of a letter from ADEPAN's Board of Directors to Enrique Vargas Nariño, Director of INA, undated) *PC* Nos. 22-23 (February-March 1960): 2, 6.

bought national flour from millers – was not acceptable either. Although this system supposedly created equilibrium and prevented speculation, INA's recent suspension of flour and grain imports in an attempt to spur consumption of national grain revealed its shortcomings and inequities. INA had divided the country into two wheat sectors: the producing zone (Cundinamarca, Nariño, and Boyacá) and the non-producing one (Medellín, and the Atlantic coastal cities of Cartagena, Barranquilla, and Santa Marta).⁶¹ Each year, the producing zone was required to absorb all of the wheat grown nationally; the non-producing one relied exclusively on imported flour and national flour made from imported grain.⁶²

The result was that when INA suspended flour and grain imports, tremendous disparity in the availability and price of flour emerged. In the productive zone, national flour was so abundant bakers could buy it for twenty cents less than INA's official minimum price. Meanwhile, in the non-productive zone, there was little flour to be had – and what there was had been put in the hands of resellers (speculators, the bakers called them) who sold it at prices ranging from \$220.00 pesos per *arroba* (approximately twenty-five pounds) to \$300.00 pesos, far above INA's set maximum price of \$180.00 pesos. Bakeries there had already begun to close in response.⁶³

Solving these problems required more than simply eliminating the artificial division between productive and non-productive zones. That was merely the starting point of ADEPAN's proposals. Imported flour should be distributed throughout the

⁶¹ Ibid.

⁶² Ibid.

⁶³ Ibid.

country based on bakeries' capacity to produce bread, not on their location. ADEPAN argued that the "privilege" of grinding all the imported grain enjoyed by the millers in the non-productive zone did not serve the nation's long-term economic goals. Similarly, national wheat should be milled on the Atlantic coast, not just at the mills in the productive zones. This would require training for the bakers in those regions, since they were not familiar with national flour and had no idea how to use it. Basically, if INA wanted to prevent scarcity and simultaneously promote national wheat production, then both national and imported grain "should be distributed in identical proportions to all the country's mills, without discrimination."⁶⁴

These changes were elemental. They also required relatively little oversight on the part of INA or other governmental agencies. In contrast, several of ADEPAN's other proposals required far more vigorous state intervention. For example, another method of avoiding speculation was for millers to sell properly mixed flour. Making their product to bakers' specifications – at least half imported flour and the remainder national flour – would reduce millers' ability to speculate with the former. This would also benefit bakers and consumers, as better bread would result.⁶⁵ ADEPAN did not doubt the ability of the nation's millers to produce such flour. Their willingness to do so, on the other hand, was highly doubted. For that reason, the state had to get involved as both regulator and supervisor: "We are certain that the country's mills can produce excellent quality flour that would improve poor quality national wheat, but this

⁶⁴ Ibid.

⁶⁵ Ibid. ADEPAN reminded INA that such large quantities of imported flour were necessary as long as the quality of national wheat was still insufficient.

requires that the Government regulate not only the milling capacity and technical processes of each mill, but also, the percent of extraction.”⁶⁶

Clearly, the level of supervision involved in overseeing each individual mill far surpassed any regulating duties INA had previously done. Another ADEPAN proposal pushed INA even further. Up to that point, punishing speculators, when it had occurred, meant revoking their import or distribution licenses. ADEPAN pushed INA to go much farther, proposing that it criminalize speculation, which would require it to work more closely with national law enforcement agencies. In this proposal two activities on the part of resellers could be classified as a “crime against the national economy.”⁶⁷ One was for a reseller to simply be in possession of flour without going through INA to purchase it and the other was to charge more for it than INA’s official maximum price. ADEPAN argued that the police would need to be involved not only to guarantee that price violations or contraband sales did not occur, but also to ensure that a “sufficient stock of flour” was maintained.⁶⁸

Finally, ADEPAN insisted that state agencies needed to respect bakers’ willingness to fairly set the price of bread. Prices were determined both by the quality of the loaves and the cost of raw materials. Having established elsewhere that the country’s bakers were committed to serving the public good by keeping bread prices as low as possible, it was unjust, ADEPAN complained, that “official agencies” (by which they likely meant INA) were colluding with millers in the call for lower bread prices.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid. For ADEPAN, this meant that INA would have to increase the amount of flour imported to the country, arguing that imports should make up more than half of the nation’s flour requirements.

Referring to the late 1959 agreement between INA and the bakers in which the prices of both flour and bread were to be lowered, ADEPAN accused INA of using the reduced price of flour as a pretext to mount a publicity campaign focused on further lowering the price of bread. This put undue stress on bakers, who were squeezed between public pressure to lower prices and the continually rising costs of their other raw materials.⁶⁹

With this last demand, ADEPAN addressed the main problem it saw with state agencies in general, and INA, in particular: not only did they fail to fulfill their missions of ensuring a level playing field between large and small manufacturers, when they did act, it was often to favor the powerful associations and their industrialized members. Although it did not state this outright, ADEPAN implied that the failure to fulfill its mission was partly caused as much by laziness or incompetence. The closing line subtly insinuated that this was so. Copies of the letter were to be sent to the President and the Ministers of Agriculture and Economic Development. The message to INA was clear: its higher-ups were being informed of the situation, to ensure that it stopped fooling around and did its job.

But the bias toward the powerful industrial concerns and associations was not caused by laziness or incompetence. Small-scale and artisanal manufacturers and the associations representing them simply did not have the power to command the

⁶⁹ Ibid. With this last demand, a seemingly obvious contradiction in ADEPAN's position emerges. Regulation apparently only applied to the other guys. This seems to make all of the baking association's demands suspect, indicating that the bakers ultimately put their own interests not only above those of the millers, but above those of the consuming masses – the general public whose welfare ADEPAN claimed to have at heart. At some level this is correct; ADEPAN's entire purpose was to promote the interests of its member-bakers. However, this apparent contradiction in many ways strengthens the rest of ADEPAN's demands, as it illustrates the bakers' perception that INA was actively working with the millers to promote the interests of the larger industrial concerns and associations, rather than attempting to level the playing field between the large industrialists and small manufacturing concerns.

attention of the agencies of the State in the same way. Thus, the fine line that ADEPAN walked with its members comes sharply into focus. On one hand, it needed to cultivate an image of itself as an association with growing power, one that got results and could ensure that its members' interests were not ignored. Increasing its membership and maintaining the loyalty of already-existing members depended on the strength of that image. But, on the other hand, ADEPAN needed to highlight the ways that bakers were abused by those more powerful than they. One of the strongest motivations for joining the organization was to collectively confront the problems they faced, and ADEPAN needed to cultivate the image of itself as an association of suffering manufacturers in order to pique non-members sense of solidarity. Naturally, this image was strengthened by their tangibly weaker position *vis a vis* large industrialists and certain state agencies, manifested in ADEPAN's February letter to the director of INA.

These dual images and conflicting goals were concretely evident in the report of ADEPAN's Cundinamarca chapter at the National Congress. The growth of Adepósitos, despite the defection of industrial bakers, was one of the highlights. Rafael Molano Olarte, a member of the Board of Directors, reported that, among other efforts to further strengthen the chapter and Adepósitos, they had reached out to millers in Cundinamarca with a proposal for their mutual benefit. The chapter proposed that Adepósitos become the millers' exclusive flour distributors. According to Molano, this would decrease millers' administrative and production costs, largely by eliminating the expense of collecting on bad debts. Relying instead on bakers' "moral and commercial solvency," millers would gain greater security. That increased security would, in turn,

work to benefit bakers. Molano outlined what millers would give in exchange: preferential sales, perhaps even exclusive ones, at better prices and improved services, such as faster delivery of flour and other raw materials, sales of smaller quantities of higher quality flour, made to special order, and increased and improved credit terms. Most importantly, this would eliminate the middlemen and their attendant price hikes.⁷⁰

Note that the benefits accruing to bakers were critical to their operations. Better flour at reasonable prices, delivered in a timely fashion on good credit terms – bakers' ability to run their small businesses depended on the existence of these factors and inputs. Meanwhile, although having guaranteed sales and eliminating some administrative costs would certainly help millers' bottom lines, these benefits were not central factors in the success or failure of their businesses. Thus, even when bakers negotiated with millers for their mutual benefit, the playing field was not level and the former still approached the latter almost as a supplicant rather than an equal.

Moments such as this when the bakers reported positively on their attempts to work collaboratively with millers were rare. More commonly, ADEPAN reported that the millers were uncooperative or rebuffed their attempts. Although bakers would likely have infinitely preferred working together with millers, the latter's unwillingness to do so provided rich fodder for ADEPAN to cultivate its image as an organization of small manufacturers facing off against large and powerful ones, an image based on a

⁷⁰ Rafael Molano Olarte, "La magnífica labor de 'ADEPAN' Seccional Cundinamarca: \$97.200.00 suscritos en la Asamblea del 23 de febrero, \$1.500.000.00 de capital para 'Adepósitos Cundinamarca, S.A.,'" *PC* Nos. 22-23 (February-March 1960): 14-15.

contrast between good and noble bakers and selfish and greedy millers. Such image-making was not left unchallenged, however. Millers contested this perception by pointing out that bakers were not the weak, small manufacturers they claimed to be, but rather, an industrial sector with powerful allies and a strong hold on the state's ear. The next section examines the foundation on which those charges rested.

Children Shouldn't Country Calories and Other Reasons to Buy Wheat from Kansas

In April 1960, Douglas Botero Boshell, the president of ASEMOL, accused ADEPAN of receiving funds from abroad. Botero's statements appeared in one of Colombia's major dailies, *El Espectador*, a Liberal-leaning newspaper. ADEPAN's dual position – as an industrial association large enough to defend some of its interests *vis a vis* the state and more powerful industrial associations, and simultaneously an organization of family-run, small artisan bakeries was evident in its refutation of these charges. Luís A. Rodríguez, ADEPAN's vice-president, insisted that Botero's statements were “completely inexact” and that ADEPAN was in no way subsidized by any foreign entity, adding that he had been the organization's president from March 1959 to March 1960, and was thus in a position to speak authoritatively about its finances. He acknowledged that ADEPAN had worked collaboratively on a publicity campaign with the National Miller's Federation of the United States a few years earlier. This collaboration emerged when Colombia re-negotiated the PL480 contract after Lleras Camargo took office in 1958, and in fact, the activities of the Millers' Federation in Colombia were subsidized through PL480 funds. According to Rodríguez, ADEPAN

had paid for all the costs of a publicity campaign focused on nutrition education and the Millers' Federation later reimbursed ADEPAN for the former's share of the campaign costs. That was the extent of foreign monies ADEPAN had ever received and Rodríguez adamantly argued that they were not donations, but rather payments the U.S. millers owed to the Colombian bakers for their share of the costs of the publicity campaign.⁷¹

Rodríguez then went on the counter-offensive. These dishonest charges were neither serious nor frivolous, he declared. Instead, they were "a distraction used by Dr. Boshell, hoping to exploit a badly informed nationalism, openly hostile to the policy of economic collaboration with the United States." They were also a transparent ploy to prevent public discussion of the millers' much more serious misdeeds:

It is easy to see that [this distraction] is designed to divert public attention and prevent debate about the truly important problem: the poor distribution and the bad quality of the flour millers provide and the serious harm [this causes] for both bakers and consumers.⁷²

As a result, bread remained expensive, in short supply, and of poor quality. Shifting blame from the bakers, Rodríguez decried the effects of the millers' monopoly over national and imported flour: they paid no attention to the suggestions bakers offered for improving the flour they sold and refused to consider any measure that would enhance bread quality if it meant increased competition or decreased profits. Worse still, they

⁷¹ Luís A. Rodríguez, "Una aclaración a 'ASEMOL,'" *PC* Nos. 22-23 (February-March 1960): 21. There is clearly a discrepancy between the events under discussion and their publication date. While Botero's statements and Rodríguez' denunciation of them occurred in April 1960, they were reported in the February-March issue of *El Panadero Colombiano*. The likeliest explanation for that discrepancy is that the bakers' association was behind in its publication schedule.

⁷² *Ibid.*

took great care to “make it appear that it was the bakers who were responsible for the bread shortage that they themselves created with their monopoly.”⁷³

Emphasis on the millers’ monopoly over flour production and distribution was a crucial element in the contrast Rodríguez’ drew between the two organizations:

ASEMOL is an association of businessmen powerful for their millions and scarce in their numbers. ADEPAN is a non-profit union consisting of more than one thousand bakeries, 80% of which are artisanal and home-based. The remaining 20% are not large industrial baking concerns, as those belong to another organization. ADEPAN’s affiliates are distributed throughout the country, and as was recently shown at the Federation’s [annual] congress in Medellín, are those most committed to ensuring that one-peso loaves of bread are available for sale.⁷⁴

In one short paragraph, Rodríguez did more than simply condemn the millers for abusing the power of their monopoly; he portrayed the struggle between the millers and the bakers in epic terms as a confrontation between the powerful and the weak. Moreover, he connected their conflict to some of the fundamental issues in Colombian society and politics at the time, specifically, the concentration of power, the nature of representative democracy, and the responsibilities of citizenship. For example, at a time when agrarian reform was widely discussed and likely imminent, the nation’s large landowners were commonly portrayed as an aristocracy, and criticized for their selfishness in the face of massive poverty and landlessness. Reminding readers that the members of the millers’ association were powerful and wealthy, but “scarce,” subtly suggested that they were as aristocratic as any estate owner. This contrasted sharply with the portrayal of the members of the bakers’ association. Their far greater numbers

⁷³ Ibid.

⁷⁴ Ibid.

immediately signaled them as an association of non-aristocrats, a status strengthened by indicating that they were predominantly artisans.

Referring to ADEPAN's larger membership base also placed it squarely in the center of contemporary debates over the meaning of representative democracy. Growing discontent over the state of the economy and dissatisfaction with Lleras Camargo's handling of continuing violence and social discontent joined already-existing criticism of the anti-democratic nature of the National Front – described as “democracy in name only.” Recall that Lleras Camargo came into power at the head of the National Front, a coalition of the two main political parties, created in 1956 to oppose the dictatorship of General Rojas Pinilla. A power-sharing arrangement between the two parties first negotiated in Benidorm, Spain, the National Front marginalized the voice of the nation's poor from its inception and prohibited third parties from running in elections for sixteen years (1958-1974). Beginning in the late 1950s and continuing throughout the 1960s, various forms of opposition to the anti-democratic nature of the National Front emerged or consolidated. These ranged from guerilla organizations to opposition parties growing from disaffected groups within the two main parties.

Rodríguez' contrasting portraits of ADEPAN and ASEMOL weave the bakers' problems with the millers into the nation's overall problem of representative democracy. As an association consisting of numerous members spread out over many parts of the country, rather than a few individuals located in a handful of large urban centers, ADEPAN better exemplified the type of organization that should have its

interests protected by the state. While Rodríguez didn't declare this outright, he forcefully implied so in his depiction of the two organizations.

Moreover, Rodríguez asserted, it wasn't just the bakers who needed the state's protection from the millers. Consumers also suffered because of the latter's greed. High quality, one-peso bread was impossible to make because the millers ground grain to 80% extraction, rather than to only 74%, the standard around the world. This meant that millers could produce more flour, but its quality was extremely poor – far too poor to produce decent bread. The only way to produce good bread with the flour milled to 80% extraction was to add larger quantities of other, higher quality flour – a recipe that obviously increased bakers' production costs. And as if that wasn't bad enough, millers also controlled the distribution of flour. Withholding flour from the market served the economic interests of the millers, but resulted in a lack of “regularity and reliability” in its distribution. Under such conditions of instability and unfairness, it was impossible for bakers to ensure that one-peso bread was consistently available to consumers.⁷⁵

But worst of all, according to Rodríguez, the millers' monopolistic control didn't end with the production and distribution of national and imported flour. Millers, represented by ASEMOL, also attempted to control public discourse and public entities. Recognizing that national wheat and flour production were insufficient, Rodríguez accused ASEMOL of attempting to sway public opinion toward supporting the importation of more grain, as a way of covering up the country's true need, which was for millers to update their old and inefficient milling practices. As he put it: “To lower

⁷⁵ Ibid.

prices, improve quality, and increase production, it is necessary to start at the root, at the beginning of the process, and not at the end, which is retail sales.”⁷⁶

ADEPAN may have very well had a point about the poor quality flour millers produced, their monopolistic control over production, and the fact that they made accusations of foreign funding for the bakers as a way of removing the spotlight from those issues. Nevertheless, while Rodríguez did seem to directly address ASEMOL’s claims about monies from abroad, in some ways, he resorted to the same tactic of which he accused the millers – deflecting attention away from the charges made against the bakers by decrying the millers’ poor production and distribution practices. And, while he seems to have solidly refuted Botero’s insinuations, there is much left unaddressed in his response.

Indeed, Rodríguez and other ADEPAN officers worked hard to portray the organization as a *gremio* of artisans with relatively little power on the national stage, supported financially only by themselves, and working on their own to defend their small businesses against much more powerful industrial interests. But, it’s not entirely clear that this is true. From the very start, ADEPAN had received various forms of assistance from public and private entities in the United States, most of them focused on increasing sales of U.S. flour in Colombia. To this end, those entities supported a variety of initiatives, such as nutrition campaigns to increase Colombian bread consumption (and hence, flour sales) and a more insidious campaign to discredit the economic viability of milling operations in countries that were not large wheat producers (as

⁷⁶ Ibid.

discussed in a previous chapter). The support of these organizations potentially increased ADEPAN's power to influence national policy and this may very well be the foreign support that concerned ASEMOL. Moreover, much of it was almost invisible. Financial transactions or monetary donations were not so easy to hide, which made refuting their existence (if they did not indeed exist) relatively simple. Collaborative publicity campaigns and the sharing of ideas and information were much more subtle forms of assistance, on the other hand.

Certainly, the presence of the National Millers' Federation of the United States seems very strong in *El Panadero Colombiano*. Between 1960 and 1961, ADEPAN published a variety of articles and illustrations focused on nutrition and the importance of bread in the diet. Considering their content, it is likely that many of these items were produced in the United States and later translated and published in *El Panadero Colombiano*.

One series in particular stands out in this regard. Focused on the connection between good nutrition and achievement in athletic pursuits, the series consisted of illustrations with accompanying text highlighting individuals, teams, or tournaments in the United States, often participating in sports that were not popular or widely known in Colombia. The headline of one such item in the January 1960 issue of *El Panadero Colombiano*, for example, read "Bread's Nutritional Goodness: Bread is Protein." Two illustrations appeared underneath the headline, one of several men playing "North American football" and the other of a group of children competing in a national junior golf tournament in Orlando, Florida. Smaller headlines dotted the page, declaring that

bread was a complete food, containing carbohydrates, fats, proteins, vitamins, and minerals, that its proteins helped the central nervous system, that there was no food better than bread, and that “bread has been, is, and will be humanity’s basic food and its history is lost in the darkness of the centuries.” A caption at the bottom of the page drove the message home by declaring that “to feel healthy one had to follow athletes’ example and eat more bread.” The text accompanying the illustration of the football players seemed to be addressed specifically to the readers of *El Panadero Colombiano*; it assumed no knowledge of the game or the season it was played and offered an explanation of the basic facts of football, such as the size of the field, the existence of yard lines, the object of the game, and how many points a touchdown was worth. It also noted that every year between the end of summer and New Year’s Day, football absorbed sports fans in the United States. Presumably, a North American would know all of these basic facts about the game, thus suggesting that the text had been written specifically for a Colombian audience, or at least one outside of the United States.⁷⁷

This does not mean, of course, that a Colombian wrote it. In fact, considering the sports that were and were not included in this series, it seems highly unlikely that it would have been produced in Colombia. In addition to football and golf, the series discussed volleyball, basketball, weightlifting, marbles, baseball, track and field,

⁷⁷ “La bondad alimenticia del pan: El pan es...proteinas.” *PC* No. 20 (January 1960): 4. Another clue that the article was produced in the United States lies in the title formatting. While in English, titles are generally formatted using title case (in which all major words are capitalized, but most articles and conjunctions are not), in Spanish, titles are formatted in sentence case (in which only the first word and proper names are capitalized). Titles in Spanish-language publications are often formatted using all uppercase, so as to avoid confusion and for aesthetic reasons, and such was generally the case throughout *El Panadero Colombiano*. But, the titles of this article and several of the others in the series were formatted using title case, suggesting that English-speaking North Americans produced them.

waterskiing, and roller hockey.⁷⁸ Individual profiles examined the lives and achievements of basketball star Wilt Chamberlain, and Olympic medal winners such as Tommy Kono, a Hawaiian weightlifter, and the three U.S. runners who claimed the gold, silver, and bronze medals in the 100 meter race in 1960. Yet, aside from baseball on the Caribbean coast, and basketball in schools, there was little interest in most of these sports in Colombia at the time. Conversely, two of Colombia's most popular sports were not included. The first soccer clubs were established in Colombia in 1906 and by mid-century, the sport was well established throughout the country. Likewise, the first "Vuelta a Colombia" – a bicycle race similar to the Tour de France – was staged in 1951 and has been held every year since. Neither of these popular sports was mentioned in the series.⁷⁹

Clearly, it seems that if the purpose of these illustrations was to encourage Colombians to eat more bread, a better approach would have been to highlight sports and athletes that Colombians might have actually cared about. This strongly suggests that they were produced in the U.S. and likely supplied to ADEPAN by the Millers' Federation of the United States. Similarly, a theme running through several articles on nutrition also suggests that they were penned in the United States. Like other countries in Latin America at the time, hunger and malnutrition were serious problems in

⁷⁸ "Deportistas...Hombres de Trabajo...Mujeres...El pan debe ser la base de su alimentación: El contiene proteínas irremplazables," *PC* Nos. 22-23 (February-March 1960): 4; "Los deportes y el valor biológico del pan," *PC* Nos. 24-25 (May-June 1960): 4; "Los deportes y el valor biológico del pan," *PC* Nos. 26-27 (May-June 1961): 59; "Los deportes y el valor biológico del pan," *PC* Nos. 26-27 (May-June 1961): 63.

⁷⁹ Matt Rendel, *Kings of the Mountains: How Colombia's Cycling Heroes Changed their Nation's History* (London: Aurum Press, 2002). See also, Safford and Palacios, *Fragmented Land*, 273.

Colombia and many organizations and initiatives were working to overcome them.⁸⁰ ADEPAN had a clear stake in this, and participated in or publicized a number of them.⁸¹ As a previous chapter indicated, when ADEPAN's Colombian nutritionists wrote articles about the importance of bread, they discussed the calories and protein it provided, and described the role it played in combating malnutrition. But ADEPAN's in-house nutritionists were not the only ones who wrote about bread in the diet for *El Panadero Colombiano*. Other nutrition articles also appeared; invariably they lacked bylines (although they sometimes indicated their country of origin). Calories in bread was a theme in several of them. Unlike the ones written by ADEPAN's nutritionists, however, these articles did not argue that bread provided a healthy method of ensuring that malnourished children consumed a minimum daily number of calories. Instead, they argued that bread was an important food for weight loss. One article reprinted from an Australian milling and baking magazine, for example, explained what a calorie was and that if the amount of them a person consumed was exactly the amount that his body needed to perform all voluntary and involuntary functions, that person would not

⁸⁰ According to statistics compiled by the Food and Agriculture Organization (FAO) in 1962, more than 90,000 children under the age of five died each year in Colombia, almost half of them directly or indirectly due to malnutrition. Responding to these grim statistics, the Ministries of Agriculture, Public Health, and National Education, together with the FAO, UNICEF, and WHO, established the "Applied Nutrition Program" in 1962 to improve awareness of nutrition education among home economists, extension agents, agronomists, doctors, veterinarians, teachers, and community organizers. See Francisco A. Perlaza S., "Programas nacionales del 'PINA,'" *Carta Extensionista* No. 3 (November 1963): 18-19. Other organizations focused on the issue of hunger and malnutrition included the Bavaria Beer Consortium, which commissioned and published a study of the nutritional requirements and problems of the Colombian working class in 1962, and the Rockefeller Foundation, whose Colombian Agricultural Program was guided, as were all of its agricultural programs, by the desire to overcome hunger. See, Alvaro Iregui Borda, *El problema nutricional en la clase obrera colombiana: Producción de alimentos populares: I – Algunos aspectos de la situación económico-nutricional de la población obrera en Colombia: calorías y proteínas* (Bogotá: Bavaria, S.A., 1962); Stakman, Bradfield, and Mangelsdorf, *Campaigns against Hunger*.

⁸¹ In September 1958, for example, ADEPAN applauded an Inter-American Nutrition Seminar organized by the FAO and held at the Luis Angel Arango Library in downtown Bogotá, which concluded that a "vast" nutrition campaign in both urban and rural areas was necessary to combat hunger in Colombia – a campaign in many respects similar to the one ADEPAN was already conducting. See, "Seminario de nutrición," *PC* No. 11 (September 1958): 14.

gain weight. Losing weight, however, was not a simple question of merely consuming less food. To lose weight, one had to go on a special weight-reduction diet, which ensured proper nutrition despite reduced calorie intake.⁸²

The direction the article then headed is easy to imagine. Calories were not all exactly the same; fat and carbohydrate more readily converted to fat in the body. Protein, on the other hand, did not convert so readily, and thus, a weight-loss diet should focus on consuming more of those kinds of calories and less of the others. This made bread a good component of a weight-reduction diet, despite its carbohydrates. It contained so much protein that it essentially canceled out the carbohydrates. And better still was the enriched flour manufacturers produced. So helpful was it to weight control, the article argued, that someone on a reduced-calorie diet could still enjoy the same amount of bread as always, as long as it had been made with enriched flour.⁸³

Another article reprinted excerpts of an interview with a German scientist, originally published in the bulletin of the “West German Center for Marketing Studies for Cereal Products.” Bread was practically a miracle food, according to “Professor W. Lintzel.” Bread eaters enjoyed increased longevity, while those who consumed a diet high in animal-based fats were more likely to experience a heart attack. High fat and protein consumption was a factor in increased levels of stress among executives, since their daily activities did not afford them the opportunity to burn off large quantities of calories. And without a doubt, bread was the most powerful weight-loss food around. As Professor Lintzel stated unequivocally, “to combat obesity, eating bread is

⁸² “El pan y las calorías,” *PC* No. 29 (August 1961): 32-33.

⁸³ *Ibid.*

necessary.” Lintzel wasn’t referring to regular-sized slices either. He considered those insufficient: “Fasting for a long time is not necessary, and above all, one should follow this piece of advice. Cut the bread into thicker slices and put butter and condiments on it.”⁸⁴

That same month, a “special report for *El Panadero Colombiano*,” appeared. Although it was ostensibly about bread preservatives, much of the article focused on developing loyal customers for bread products. A key strategy, the article argued, was “starting at the root” – creating tomorrow’s consumers by teaching children about nutrition and the value of bread. Ideally, this education should begin in the home. Sadly, the article lamented, this was not happening. Instead, mothers with “weight-loss manias” were instilling poor eating habits. Teaching their children that calories – like “measles” – were to be avoided, these mothers never gave children the chance to learn how to manage calorie consumption. Although this section of the report focused on calories from all sources, the author implied that bread was particularly singled out by these irresponsible mothers and that this was unacceptable: “children need complete and well-balanced meals and they shouldn’t be allowed to reject a nutritious food for no good reason.”⁸⁵

While concerns over physical appearance and maintaining a healthy weight were certainly not absent in Colombia at the time, the emphasis on weight loss in these articles contrasts sharply with ADEPAN’s concern for overcoming hunger and malnutrition, evident in other articles and news items. Significantly, those latter items

⁸⁴ “Aunque Ud. no lo crea: Los que comen pan de trigo viven más tiempo,” *PC* No. 31 (March 1962): 23-24.

⁸⁵ “La conservabilidad del pan,” *PC* No. 31 (March 1962): 25-27.

usually listed bylines by Colombian authors (mainly ADEPAN's nutritionists) or discussed national events and issues, indicating that they were written in Colombia. This makes even starker the contrast between the "first world" problem of over-consumption of calories and the "third world" problem of under-consumption. It also increases the likelihood that the articles focused on weight-loss were supplied to ADEPAN by the Millers' Federation of the United States, as part of the collaborative nutrition education program between the two organizations.

Ironically, the article immediately following the one focused on the preservation of bread was titled "How Much Bread Does a Colombian Consume?" Although it never directly answered the question the title posed, it noted the importance of cereals in the diet and discussed how the world's strongest wheat-growing countries had made massive production gains in recent years, while other countries with increasing populations, such as Spain and Colombia, had not. Imports were thus necessary to ensure good nutrition among Colombians.⁸⁶ A similar assertion had appeared a few months earlier in *El Panadero Colombiano*, when ADEPAN reported that a study by the UN's Food and Agriculture Organization (FAO) concluded that while the recent increase in global food production (2%) outpaced global population growth (1.6%), it was still insufficient to combat malnutrition and hunger in Asia, Africa, and Latin America. The only solution was to increase agricultural output in those regions. According to this FAO study, however, such an increase would be difficult to achieve,

⁸⁶ "¿Cuánto pan consume un colombiano?" *PC* No. 31 (March 1962): 28-29.

considering the growing conditions prevalent in those tropical and sub-tropical areas of the world, which inhibited output comparable to that achieved in temperate zones.⁸⁷

Although the FAO was a well-known organization in Colombia and there is no reason to assume that the editors of *El Panadero Colombiano* could not have come across its study independently of the Millers' Federation of the United States, the contrast the study apparently made between the agricultural abundance of temperate climates and the insufficiency of tropical and sub-tropical ones was echoed in two other articles that made a case not only for the consumption of wheat grown in temperate regions, but for that specifically produced in Kansas or the Mid-West. Only one of these articles appears to have been written in Colombia. Nevertheless, in the first paragraph it indicated that it was based on a study in a magazine titled *Panadero Latinoamericano*, published in Houston, Texas. Discussing the importance of gluten, which provided bread's protein, and how the quantity of it present in flour changed depending on wheat variety and the climate in which it was grown, the article asserted that it was the "strong" flours that most readily absorbed water and hence made the best bread, and that those flours were produced primarily in Canada and the United States. Argentina could also grow them, but to a lesser degree.

Relying on the work of Dr. Octavio Oltra Bravo, a Chilean agronomist, the *Panadero Latinoamericano* article claimed that "in our Latin American countries the conditions for strong wheat are less possible than in the United States and Canada." For that reason, imports were always necessary, so that millers could mix a small quantity

⁸⁷ "Mundo-Trigo," *PC* No. 28 (July 1961): 36-37.

of those “strong wheats” to the ones grown nationally, in order to produce adequate flour for bread-making purposes. For ADEPAN, those excerpted statements by Oltra Bravo provided compelling evidence of the problems they faced:

These last words from Dr. Oltra Bravo seem as though they were speaking specifically about Colombia, but we ignore that the problem of poor wheat quality is one of all the Americas – even Argentina, which produces the best [among us] can’t equal Canadian, American, or Russian, and we don’t produce anything better than soft wheats and this is unfortunately because of our tropical position, which is unchangeable.⁸⁸

An article that seems to have come from Spain was much stronger in its presentation of “temperate” wheat as superior to that produced elsewhere; it specifically singled out “Dark Hard Winter” – a variety widely grown in Kansas – as one of the best varieties available. Titled, “Dark Hard Winter: The Best Wheat in the World,” the article discussed a Belgian campaign to increase bread consumption there, which had been declining. According to the article, bread quality had diminished and this discouraged consumers from purchasing it. To remedy this problem, the campaign promoted production of bread made with a combination of regular flour brands and that produced with Dark Hard Winter wheat.⁸⁹

Quickly moving past the introductory paragraphs about this Belgian campaign, the rest of the article focused solely on the history and high quality of Dark Hard Winter wheat. Although it was apparently Spanish in origin, the text could have easily come from a promotional tract by Kansas wheat growers. It included a map of the United States (published in the original Spanish version, but not in *El Panadero*

⁸⁸ “Que es el gluten...? Proteínas,” *op.cit.*

⁸⁹ “El ‘Dark Hard Winter,’” *op.cit.*

Colombiano) that vividly showed the magnitude of “the Great Wheat Plains, in other times the land of redskins and bison” but now the home of “the largest wheat fields.” Immigrants had brought the variety to the region in the 1880s, and it had been gradually improved over the years through a careful breeding process, selected for “vigor” and pest resistance, until, in 1958, it reached production levels of 26,300,000 tons on 15,358,000 hectares.⁹⁰ In the end, however, it wasn’t solely the entrepreneurial spirit of Kansas wheat farmers or the science they applied to their breeding efforts that made Dark Hard Winter the incredible variety that it had become: “the exceptional climate, the rich soil, and the abundant sunshine...had made it the best variety in the world.” In fact, without those crucial factors, Dark Hard Winter was simply another decent, but not spectacular variety, evidenced by its failure to thrive in Spain. Although the first few harvests after it had been introduced were “satisfactory,” it quickly “degenerated... leading to the conclusion that it could not adapt to our climates or soils.”⁹¹

The hand of the US Millers seems strongly evident here, but they were not ADEPAN’s only source of foreign assistance. The baking industry also received various forms of support, some indirect, from one of its most important suppliers – Compañía

⁹⁰ For comparison, in 1952 Colombia produced 140,000 tons on 187,900 hectares and hoped to increase production to 300,000 tons by the end of the decade. See, Alberto Moscoso Rodríguez, “Análisis de la producción y mercadeo del trigo en Colombia, 1963,” unpublished senior thesis, Universidad La Gran Colombia, Bogotá, 1963), 22.

⁹¹ “El ‘Dark Hard Winter,’” *op.cit.* Spain was a recipient of PL480 wheat in the 1950s and 1960s and possibly also received propaganda from Kansas wheat growing associations, similar to that of its neighbor, Portugal, whose milling and baking interests were invited to Kansas for a tour of the wheat-growing industry there in the late 1950s. See, *Marketing Kansas Wheat* (Topeka, KS: Marketing Division, Kansas State Board of Agriculture, 1959), 95. That could possibly explain how an article promoting Kansas wheat ended up in a Spanish publication.

Fleischmann Colombiana, a subsidiary of the US-based company.⁹² Some of this assistance came in the form of advertising in *El Panadero Colombiano*. Advertisements alone do not make this company distinct from many of the baking industry's other suppliers, of course. Colombian milling companies, such as Generoso Mancini & Cia. or Molinos Cundinamarca, consistently placed full-page ads for their flour, as did distributors of U.S. brands (such as Gold Medal by General Mills and "Rey del Norte" by Pillsbury). But only Fleischmann consistently paid for two-page ads filled with dense text and photographs. They were elaborate advertisements, often containing a narrative arc demonstrating its solidarity with and commitment to the baking industry. One for example, drew on the poor conditions of Colombian roads and highways, particularly in the steep and mountainous areas, to make its point. Displaying a full-page photograph of a washed-out bridge, introduced with the headline that "Only Fleischmann offers such rapid and frequent deliveries of superior yeast," part of the accompanying text told of the various forms of transportation to which Fleischmann had resorted to deliver its products despite washed-out bridges and impassable roads. Sometimes they had to use airplanes or contract special boats. Usually, however, such problems were overcome using repair trucks in their numerous locations throughout the country. But like the proverbial postman, the impression the ad created was that no

⁹² While in the United States the company's commonly known name is "Fleischmann's," in Colombia it is "Fleischmann" and that is the term used here.

matter the circumstances, Fleischmann would never leave its baker-customers high and dry with no yeast to make their bread.⁹³

Such uniquely expensive ads no doubt provided significant funds that helped keep *El Panadero Colombiano* in print.⁹⁴ Other Fleischmann assistance took the form of a charitable gift made in honor of the bakers in the nation's capital. Specifically, in December 1961, Fleischmann donated several dozen cribs to three different hospitals in Bogotá. Four years earlier, ADEPAN had organized a charitable drive among its member-bakers, asking for bread donations to distribute to poor families at Christmas. This campaign boosted their public profile, helping them cultivate their image as an association of socially aware business owners.⁹⁵ Fleischmann's donation strengthened this image.⁹⁶

Fleischmann helped ADEPAN develop another aspect of its public image as well. Recall that in late 1959 Colombia's bakers were criticized for the poor quality of

⁹³ "Sólo Fleischmann ofrece tan rápidas y frecuentes entregas de levadura superior," *PC* Nos. 26-27 (May-June 1961): 36-37. The other characteristic of Fleischmann's advertisements in *El Panadero Colombiano* that set them apart from the rest is how distinctive they were. While others used the same advertisement over and over again, Fleischmann's had a whole series of such elaborate ads. One discussed at length the role of yeast in bread-making, describing its brand as the "miracle ingredient." Another wrote of how bakers were offering a greater variety of products than in the past and this required a closer relationship with their suppliers, which Fleischmann's could ensure with its seven factories throughout Latin America. A third discussed how its yeast product was still effective in Colombia's lowland regions, where high temperatures reigned. See, "Un paquete o mil, este es el ingrediente milagroso," *PC* No. 1 (November 1957): 16-17; "Más variedad significa más ventas," *PC* No. 3 (January 1958): 16-17; "A 45° a la sombra," *PC* Nos. 24-25 (May-June 1960), 20-21.

⁹⁴ Evidence that ADEPAN looked to Fleischmann (and its competitor yeast supplier) as a source of funding to keep the baking association afloat, came in a proposal at the 7th National Congress in Medellín in February 1960. Someone proposed that Fleischmann and Levadura set aside three cents from every package of yeast that they sold to the association's members, to be dispersed back to ADEPAN to help it grow its operating funds. It is unclear if this proposal was ever requested of the yeast suppliers, or implemented. See, "'ADEPAN fija su política," *op. cit.*

⁹⁵ "La campaña de ADEPAN," *PC* No. 2 (December 1957): 18.

⁹⁶ "Compañía Fleischmann Colombiana obsequia camas-cunas," *PC* No. 30 (December 1961): 20. This donation possibly helped Fleischmann with its own publicity problems. Five years earlier, in 1953, it had closed its yeast factory in Facatativá, on the outskirts of Bogotá, after building a new factory in Palmira, near Cali. The Bogotá factory had been operating since 1930. See, Fleischmann-Colombiana: Alofleischmann, "Historia," www.alofleischmann.com/co/LaEmpresa/Historia/tabid/681/language/es-UY/Default.aspx.

their bread and the high prices they charged and that ADEPAN's strategy to deflect that criticism was to argue that bakers were deeply committed to producing high-quality bread and alleviating poverty through low prices, but were prevented from doing so due to the poor quality flour Colombia's millers produced. As part of that strategy, ADEPAN called on a variety of public and private entities to support their efforts to create a baking school. These included Fleischmann, Levapan (another yeast producer), millers, the SAC, and the Servicio Nacional de Aprendizaje (SENA), a national vocational training service for adults. Collaboration was essential, ADEPAN argued, because everyone had a stake in bread quality and working together would reduce costs and ensure that no single entity had too onerous of a burden. The SAC should be involved, it argued, because bakers had become accustomed to using imported flour and wheat growers needed to explain the properties of national grain so that bakers would not waste resources during a costly period of trial and error while they figured out how to work with it. This, in turn, would increase demand for national grain, to the obvious benefit of Colombian wheat growers. The same was true for millers and the different brands of flour they produced. Such a collaborative baking school furthered SENA's interests as well, since its goal was to rapidly increase training programs throughout the country. And, obviously, as ADEPAN maintained, this was essential for bakers who cared about quality and profit, since the latter was dependent on the former.⁹⁷ Sadly for ADEPAN, this proposal went nowhere. The SAC and the millers

⁹⁷ "Por una escuela de panificación," *PC* No. 20 (December 1959): 27.

showed no interest at all. SENA took its time getting on board; only Fleischmann was enthusiastic from the start.⁹⁸

Beginning in 1961, Fleischmann and ADEPAN provided training courses for bakers in various cities throughout the country. The first course was held in August at the Universidad del Valle in Cali and was quickly followed by two others in Medellín and Barranquilla. Each course lasted three weeks and was led by Antonio F. Araujo, a baking expert Fleischmann hired to conduct training courses throughout Latin America.⁹⁹ The courses were well-received by bakers.¹⁰⁰ These training courses – and the bakers’ enthusiastic response to them – demonstrated ADEPAN’s dedication to improving the quality of its production processes and hence, the bread it produced. Not only did this contrast with the image it propagated of milling companies uninterested in improving their technical processes or creating a better product, it also touted its commitment to serving the public good by offering better bread for sale.

Fleischmann was not the only entity with ties to the United States that promoted training for bakers. In March 1962, ADEPAN reported that Great Plains Wheat Market

⁹⁸ Fleischmann had promoted training for bakers independently of ADEPAN since the late 1950s, sending Antonio F. Araujo to various parts of Latin America and organizing the first training session in Bogotá (for a select group of ADEPAN bakers, mainly the association’s leadership) in early 1960. See, “El primer curso de la escuela Fleischmann de panaderos,” *PC* Nos. 22-23 (February-March 1960): 7. A second course took place in May; twenty-one ADEPAN bakers participated. Fleischmann offered these courses free of charge. See, Jaime Fernández G., “El último discurso de técnica de la panificación del Profesor Araujo,” *PC* Nos. 24-25 (May-June 1960): 27.

⁹⁹ “Por una escuela de panificación,” *op.cit.*; “Cursos sobre panificación patrocina la Fleischmann,” *PC* No. 29 (August 1961): 33; “Glosario del mes,” *PC* No. 30 (December 1961): 2.

¹⁰⁰ During the closing ceremony at the Cali training course, one of the participants read aloud a letter of thanks to Araujo. The letter effusively praised his efforts, referring to the bakers as “old dough” that Araujo had brought back to life through the addition of just the right amount of water (“to strengthen the gluten”) and salt (“to give flavor”). The letter discussed a Greek word that defined the gravity of the ceremony, cited Ralph Waldo Emerson’s quote on how nothing great was achieved without enthusiasm, and likened Araujo to St. John the Baptist, claiming that he had made them pure and filled them with wisdom. The layers in the letter are intriguing. On the one hand, it displays a level of erudition that indicates that the baker-participants were men and women with a fair degree of education or formal study. But, on the other, the sincere tone of this lavish praise suggests that the authors viewed themselves as subordinates to Araujo. They seem to be trying too hard, the sweetness of their praise making them seem almost innocent and provincial. See, “Glosario del mes,” *op.cit.*

Development Association, Inc. had made great strides in Colombia. Although it had only been established four years earlier, in 1958, its representatives had made many contacts in both the milling and baking industries, and it had been instrumental in helping to set up and support the Baking School, a program jointly sponsored by ADEPAN, INA and SENA, and which ultimately fulfilled the dream the baking association had expressed two years earlier. Simply helping the bakers finally establish their long-planned school was not the only assistance Great Plains Wheat provided; it offered grants to bakers who wished to attend.¹⁰¹

Great Plains Wheat (GPW) also played an important role two years before in early 1960, when it co-sponsored a study of Colombia's flour needs. In fact, GPW may have been one of the organizations that ASEMOL had in mind when it argued that foreign interests were funding ADEPAN. In late 1959, the U.S. embassy in Bogotá commissioned a study of Colombia's flour needs and supplies. Two men closely connected to wheat and flour interests in the United States were put in charge of the study. Roy E. Durham was an advisor to both Great Plains Wheat and the Millers' Federation. Edward F. Seeborg was a representative of the U.S. Department of Agriculture (USDA).¹⁰² During December 1959 and January 1960 they traveled throughout Colombia to survey Colombia's flour situation. In February, their report was released with much fanfare. Significant portions were reproduced in Colombia's

¹⁰¹ "Becas para panaderos," PC No. 31 (March 1962): unpaginated.

¹⁰² RAC, RF, 12.3, Diaries, "Criterios antagónicos desconcertantes rigen la política triguera en el país, hoy," *El Colombiano*, March 25, 1960.

major newspapers.¹⁰³ *El Panadero Colombiano* introduced its version with a short note by the U.S. Agricultural Attaché, Henry Hopp.¹⁰⁴

Although Durham and Seeborg expressed support for Colombia's agronomists and their goal of developing seeds apt for the country's growing conditions – and that could produce good quality flour – the gist of their report was that Colombia needed to dramatically increase the amount of wheat and flour it imported.¹⁰⁵ As they explained, demand was increasing, but production was not keeping pace. Moreover, the wheat varieties grown in Colombia were not good quality and their resulting flour could only be used to make decent bread by mixing it with “stronger” imported flour (or flour milled from American grain). Worse still, Colombia's high milling capacity further decreased flour quality. Low national production and governmental limitations on imports meant that millers did not have enough grain to justify the costs of running their operations. To compensate, they extracted more flour from the grain they did have, which resulted in a poor quality product, filled with ash and other debris.¹⁰⁶

¹⁰³ *Ibid.*

¹⁰⁴ “Los técnicos agregados agrícolas de la Embajada Norteamericana planifican la política harinera en informe rendido al Gobierno Nacional – No más improvisaciones económicas,” *PC* Nos. 22-23 (February-March 1960): 8-12.

¹⁰⁵ Although Durham and Seeborg initially declared that the two best varieties for Colombia to import were Manitoba from Canada and Hard Dark Winter from the United States, they also proudly noted that the latter was used as the standard by which Colombian agronomists measured the performance of the wheat varieties under development at the Tibaitatá Experimental Station on the outskirts of Bogotá. The longer report also emphasized imports from the United States, something which clearly upset Canadian wheat growers. *El Panadero Colombiano's* May-June issue printed the text of a letter from the Canadian Secretary of Commerce to the director of INA, expressing this concern: “Also, I was very interested in the letter by Dr. Henry Hopp, U.S. Agricultural Attaché, published in the same edition, in which he indicated that the Durham report ‘does not intend to suggest that the United States is the only source supplying uniform, high-quality flour.’ I wish to support Dr. Hopp's note, being that Dr. Durham's report could create a false impression among wheat and flour buyers and consumers, something that has generated some inquietude in Canada. At the same time, I would like to express my appreciation for the way Dr. Hopp clarified this issue and I hope that Colombian bakers remember that Canada is also a source providing uniform, high-quality flour.” See, “Una aclaración necesaria,” text of letter from John H. Bailey, Canada's Secretary of Commerce, to Enrique Vargas Nariño, Director of INA, dated July 5, 1960,” *PC* Nos. 24-25 (May-June 1960): 23.

¹⁰⁶ “Los técnicos agregados agrícolas de la Embajada Norteamericana,” *op. cit.*

If the Colombian government took bakers' need to mix some quantity of American flour with national flour into account, Durham and Seeborg argued, then its calculations of how much wheat and flour should be imported would dramatically change. Moreover, they outlined the various modern advances that millers needed to learn, such as bleaching and chemical maturation of flour. Much of the report, in fact, seemed to have been written with the needs of Colombia's bakers in mind. There were, in fact, a variety of subtle and more direct suggestions that the bakers of ADEPAN were foremost in the minds of Durham and Seeborg as they wrote their report.

For example, in a section outlining the benefits of increasing flour imports, the only organization the report mentioned by name was ADEPAN. Indicating the it had recently established warehouses in different cities to help ensure steady supplies of flour for its member bakers, Durham and Seeborg wrote that regular imports would help ADEPAN keep those warehouses stocked and thus prevent periodic shortages. Similarly, in a discussion of flour quality, the report dedicated only one short paragraph to the needs of pasta makers – already a highly mechanized industry despite only having recently been established. Yet, it dedicated a page and a half to the needs of bread makers. In a different discussion on the role of INA in ensuring sufficient quality and quantity of flour, Durham and Seeborg told of an incident in which a shipment of flour had arrived at a “northern port,” but had not been distributed quickly and instead succumbed to a bug infestation while sitting in an INA warehouse. Part of the reason this had happened was that it was not useful for bread-making. No bakers wanted to buy it, and thus, it rotted in Barranquilla. Durham and Seeborg suggested that this

problem could be avoided in the future if INA focused less on buying the cheapest flour available and more on buying the kind that the country's bakers actually required, once again putting the needs of Colombia's bakers front and center.

Durham and Seeborg also seem to repeat word-for-word many of the complaints that bakers had made over the years and would continue to make in the future. They mentioned, for example, that INA was considering a change in the policy authorizing it to purchase all flour produced by the mills and determine how to distribute it among bakers. The proposed change would have permitted bakers to buy flour directly from millers, resulting in increased competition and thus, improved flour quality. The two North Americans strongly favored this proposed change. Similarly, they wholly supported the efforts of Colombia's bakers to further mechanize their industry. Reporting that ADEPAN's leaders believed that partial mechanization in the baking industry would lead to better and more affordable bread, Durham and Seeborg expressed their complete agreement with the baking association's efforts to gain import licenses: "This is a highly commendable movement and INA should promote it to the point of permitting the importation of baking machinery."¹⁰⁷ Finally, the report's

¹⁰⁷ Ibid. It is unsurprising that the North Americans would support increased mechanization among bakers. A previous study had concluded that good French bread could be produced in Colombia with a mixture of 77% national flour and 23% national American flour. But, the percentages were different for the kinds of pastry-like baked goods that Colombians also wanted to consume. In artisanal bakeries, where mixing was done by hand, good pastry products could be produced using various mixtures of national and national American flour, but in mechanized ones, a more exact combination of 20% national, 50% national American, and 30% imported flour was necessary. Clearly, these larger quantities of imported grain and flour strongly benefited the U.S. wheat interests Durham and Seeborg represented. Intriguingly, "sliced bread" – the kind of loaves often used to make sandwiches, and a food product that Colombians were generally uninterested in consuming – could only be made using imported grain (25%) and flour (75%). Despite Colombian's disinterest in this product, some of the images in *El Panadero Colombiano* depicted these kinds of loaves, offering further evidence of the strong connection between ADEPAN and the Millers Federation of the United States. The cover of the inaugural issue, for example, featured several slices of such bread superimposed over a map of Colombia. See, *Panadero Colombiano*, No. 1, (November 1957): cover.

authors lauded ADEPAN's efforts to establish a baking school, noting the positive effects such training would have on the quality of bread.

Millers, in contrast, were not praised at any point in the report, neither for concrete advances they had made in improving milling capacity or flour quality, nor even for efforts to do so. Instead, they were disparaged as having insufficient knowledge, expertise, and training to properly mill flour. Although the report acknowledged that Colombia as a whole lacked the laboratories that could conduct the experiments on flour that could guide millers through the process of improving their product, it still did not let them off the hook for their lack of knowledge and expertise. And again, while it also recognized the difficulties millers faced, in terms of irregular supplies of imported grain and the poor quality of national, no proposals specifically benefiting them were put forward.

This does not mean that millers got nothing out of the Durham-Seeborg report. On the contrary, the report's primary goal – to increase imported flour and grain – benefited millers as much as bakers. Flour use in the country at the time consisted of 56% national, 35.5% national American, and 8% imported; the North Americans argued that it should actually consist of 43.5% national, 45.5% national American, and 11.4% imported.¹⁰⁸ But, this represented an overall increase of all kinds of grain, which would benefit millers, allowing them access to more of their necessary raw material, and thus, increase their productivity. It also helped the millers that Durham and Seeborg

¹⁰⁸ Although this represented a 13% reduction in the use of national flour, Durham and Seeborg presented it as an increase in the use of national grain, since they proposed an overall increase in the total amount of wheat consumed in Colombia, to be achieved by increasing both national production and imported grain. The latter, of course, would increase at a higher rate.

recommended that INA take not only current demand into account when calculating imports, but also the amounts purportedly necessary to ensure that all Colombians enjoyed proper nutrition. When taking the latter into account, the amount of flour Colombia needed increased substantially. Similarly, calls for consistent shipments addressed one of the millers' primary concerns.

Thus, although the report seemed to favor ADEPAN and Colombia's bakers, millers were not harmed by its recommendations and, in fact, benefited. Ultimately, garnering the support of both millers and bakers in Colombia was a primary strategy of Great Plains Wheat. Unlike the Millers' Federation of the United States, who worked principally (and essentially solely) with ADEPAN, GPW had something to offer both sectors. Building strong connections with both of them would eventually pay off for this organization representing U.S. wheat interests, as the next section will discuss.

But, that would take some time. In early 1960, ADEPAN still struggled against the more powerful voice of the millers. When the Durham and Seeborg report was released in February that year, ADEPAN announced it with much fanfare. Hernán Villamarín, a board member, wrote glowing praise for its statistical work and rational conclusions. But, he also wondered if anyone, particularly INA, would pay attention and implement its recommendations, or if it would be disparaged instead.¹⁰⁹ During his year-end report at the organization's Seventh National Congress that month, ADEPAN's outgoing president, Luís A. Rodríguez, wondered the same thing.

¹⁰⁹ Hernán Villamarín G., "Un excelente informe," *PC* Nos. 22-23 (February-March 1960): 5-6.

ADEPAN had based their new policy statement on the report and asserted that it made no sense for the government to ignore its recommendations.¹¹⁰

Three months later, ADEPAN predictably lamented that INA had not taken the report seriously. In protest, it drafted a memo to the Minister of Agriculture, Gilberto Arango Londoño, complaining about Colombia's apparent inability to implement a comprehensive policy on flour and demanding that Durham and Seeborg's recommendations be implemented. It also asked that INA respond to the numerous letters and memos it had sent over the previous weeks and months regarding the report and its official policy.¹¹¹ Another ADEPAN board member decried the government's indifference to their plight and INA's willingness to turn a blind eye to speculation by the millers – and those complaints formed the basis for another letter, this one to the Commission on Administrative Reform, demanding that a special committee on wheat be set up within INA.¹¹²

In spite of all these demands and the support of both the Millers Federation of the United States and Great Plains Wheat, it would be almost two more years before ADEPAN would see the policy reforms it desired. Ministerial changes affected its fortunes, as well as the nation's economic situation and the focus on implementing agrarian reform. Ultimately, getting INA to institute consistent flour and grain importation required the re-union of the artisan bakers of ADEPAN and the industrial bakers of FIP, as well as the collaboration of ASEMOL and ASEMOLPRO. That the

¹¹⁰ "Declaración de principios del VII Congreso," *op.cit.*

¹¹¹ "Un temario para el Señor Ministro de Agricultura, Presidente del INA," *PC* Nos. 24-25 (May-June 1960): 2.

¹¹² Hernán Villamarín Gutiérrez, "Un estatuto legal en pro del público y los panaderos," *PC* Nos. 24-25 (May-June 1960): 3; "Por un comité del trigo," *PC* Nos. 24-25 (May-June 1960): 26.

voice of ADEPAN's artisan bakers could only gain the clout it needed on the national stage by uniting with more powerful domestic industrial concerns points to the limitations of U.S. hegemonic discourses of economic and agricultural development.

But again, many months passed before this collaboration took place. During that time, ADEPAN attempted to maneuver through the economic and political waters, shifting how it represented itself and its interests as conditions changed. This also affected how it saw itself *vis a vis* the Colombian state. The next section will discuss these processes of identity- and state-formation.

The Bread Oligarchy Battles the Boll Weevils

The photographs of an Atlantic City exhibition on industrial baking published in the December 1961 issue of *El Panadero Colombiano* seem more fitting for a travel magazine than a trade journal. In one, a group of passengers are assembled in front of the Avianca jet they were about to board, all of them with matching Avianca bags in their hands. In another, a giant elephant statue stands guard at the entrance to a fancy restaurant, and in others, picturesque boulevards and monuments are praised for their cleanliness, beauty, and width.¹¹³

The levity of the photographs, however, belied the serious subject of the text they accompanied. With the support of Fleischmann, fifty ADEPAN members attended the exhibition – the largest delegation from any single country. Francisco Montoya Isaza, the then-current president of ADEPAN, and Luís A. Rodríguez, the immediate past

¹¹³ "Luís A. Rodríguez habla sobre: La Exposición Industrial de Atlantic City," *PC* No. 30 (December 1961): 9-11.

president, were both part of the delegation. After several days viewing the latest baking technologies at the exhibition, the two presidents and the members of the delegation concluded that the baking industry in Colombia was fifty years behind in bread-making technology and in great need of modernization. Rodríguez and Montoya discussed this with a few of the exhibition presenters, who were quite enthusiastic about helping them acquire some of the equipment, even offering to send technicians, free of charge, to help them get the machinery installed and operating. Thus encouraged, the two presidents took action. Even before the return flight to Bogotá had left Atlantic City, Rodríguez had contacted the appropriate Colombian governmental agency, to request import licenses for the machinery.¹¹⁴

Upon their return, however, their excitement quickly faded, replaced by deep disappointment. Rodríguez and Montoya made dozens of inquiries and visited several government agencies, seeking approval for their import licenses. But, to no avail. As Rodríguez later declared, the baking industry will never modernize, because “official policy will not allow it to do so.” While it might seem hyperbole to equate state policies with a conscious attempt to stymie the modernization goals of an entire industry, the response of a top official at the Superintendency of Imports suggests that Rodríguez was not exaggerating. The official rejected not only ADEPAN’s request, but the underlying argument on which it was based. He responded disparagingly, asserting that “Colombians are already eating good bread, and in the previous century it was

¹¹⁴ Ibid.

even better, and didn't require special machinery, [making this] request a luxury that the Colombian people cannot approve."¹¹⁵

While the bakers' request may seem fairly innocuous – perhaps even exemplary – making the Superintendent's disparaging reply seem all the more callous, it is surprising that ADEPAN expected that they would have any luck at all. Economic circumstances were such that only the most essential machinery for industrialization was being imported. But there was another, more personal reason that made ADEPAN's expectation that their request would be warmly received rather unrealistic.

Earlier that year, its relations with the Colombian state had soured after INA had altered its import policies. Pressure from the two millers' associations had led INA to cancel all imports of "qualified flours." Once again, this threatened to decimate national production and ruin the quality of bread – harming everyone who was not a powerful miller in the process – farmers, artisanal bakers, and consumers.¹¹⁶ In response, at its Eighth National Congress in April 1961, ADEPAN declared Enrique Vargas Nariño, INA's director, "persona non grata." Pointing to his "monopolistic policies and lack of social sensibility," they demanded his immediate resignation and the abolishment of INA as the country's only official wheat importer. Millers should be allowed to import what they wanted, the bakers declared, calling on President Lleras Camargo to

¹¹⁵ Ibid.

¹¹⁶ "Informe del Doctor Jaime Angel Villegas, Director Nacional de 'ADEPAN,'" *PC* Nos. 26-27 (May-June 1961): 25.

simultaneously increase flour imports and programs promoting national wheat production.¹¹⁷

Vitriol abounded at the congress. The mildest criticism came from Jaime Angel Villegas, ADEPAN's National Director, who lamented that relations between ADEPAN and the national government, particularly INA, had "completely deteriorated."¹¹⁸ Most comments, however, lacked such understatement. For example, Luís A. Rodríguez, the Vice-President of ADEPAN's Board of Directors, decried the injustices committed by INA – injustices that ADEPAN had been suffering in silence. No longer, Rodríguez declared: Vargas Nariño had taken advantage of the fact that the baking association was dependent on good relations with INA and thus, inclined to remain silent about the latter's many "errors." But, this silence came with a price, and now the bakers were taking to heart the maxim, "Ni tanto honor, ni tanta indignidad." He added that if INA chose to deny Adepósitos access to imported wheat or flour, it would be acting illegally, trampling on the bakers' right to free assembly.¹¹⁹

Epic injustice was a common thread. Villamarín Gutiérrez, for example, penned an editorial arguing that ADEPAN's problems with INA were just one example of the continent-wide social and economic issues brought into sharp focus by the Cuban Revolution. Newspapers, pamphlets, and the National Department of Statistics pointed every day to the same thing: the cost of living was continually on the rise, "growing in

¹¹⁷ "Conclusiones del VIII Congreso Nacional de la 'Asociación Nacional de Fabricantes de Pan – ADEPAN: Los panaderos piden el retiro de Enrique Vargas Nariño de la Gerencia del INA, por su política monopolista y la falta de sensibilidad social," *PC* Nos. 26-27 (May-June 1961): 1.

¹¹⁸ "Informe del Doctor Jaime Angel Villegas," *op.cit.*

¹¹⁹ "Informe sobre los 'Adepósitos S.A.' del Vice-Presidente de la Junta Directiva, Luís A. Rodríguez," *PC* Nos. 26-27 (May-June 1961): 27-29.

geometric progression,” in fact. But, the State didn’t care. The government’s attention was instead focused on political issues, not economic ones. Villamarín noted that the resultant unrest was blamed not on the underlying economic problems, but rather on communist agitators, supposedly taking orders from Fidel Castro and concealing themselves in Leftist movements. “Reactionary forces and the government” responded by devoting all their attention and resources to combating those agitators and political movements. For Villamarín, this approach was completely wrong-headed.¹²⁰

Villamarín described the difference between a “healthy” and a “broken” economy. In the former, “confidence” and “stability” reign, which leads to “tranquility.” In the latter, “unscrupulous intermediaries” manipulate markets, prices rise, unemployment goes up, and social unrest results. If things get too out of hand, the masses lose complete confidence in the government and join social movements, some of them violent.¹²¹

Modern states, Villamarín noted, have bureaucratic mechanisms in place to ensure that the latter scenario doesn’t occur. A crucial element of these mechanisms is price regulation, particularly for “items of prime necessity.” Such elements were not “absent” in Colombia, he continued, and they were functioning – “in theory.” As Villamarín saw it, the important issue was less whether or not such mechanisms existed and operated in Colombia, but rather, whether or not they actually fulfilled the purposes for which they had been established and who benefited from their activities.

¹²⁰ Hernán Villamarín Gutiérrez, “El costo de la vida,” *PC* Nos. 26-27 (May-June 1961): 4-5.

¹²¹ *Ibid.*

From the inaugural issue of *El Panadero Colombiano* in 1957, ADEPAN had complained about speculators.¹²² They were usually referred to as anonymous intermediaries or resellers. Occasionally, ADEPAN hinted that millers and INA were involved. But, in May 1961, Villamarín Gutiérrez pulled no punches. He directly accused INA of being Colombia's worst "unscrupulous speculator." According to Villamarín, each harvest saw INA running around the country, purchasing the grain farmers had grown at "ruinous" prices. Then, it stored all the grain, keeping it off the market to create artificial scarcity and drive up the price. Once that occurred, it released the grain to intermediaries, who it then accused of raising prices unnecessarily – putting on a show of doing its primary job of combating high prices. Worse still, it helped set the whole process in motion in the first place, by timing grain imports to coincide with harvests, ensuring low prices for national grain. INA could thus buy low and sell high, making "outrageous profits" from the whole venture. Or as Villamarín angrily denounced: "in this way, every year its capital multiplies with the illicit profits extracted from the efforts of national labor."¹²³

This did not mean that the Colombian legislature had made a mistake when it created INA, according to Villamarín. Nor did he believe that the baby should be thrown out with the bathwater – he refuted the idea that INA was rotten to the core. Its purpose was good, and if it carried out the functions with which it had been charged, the nation's economy would improve. The problem was its director, Vargas Nariño. That all of ADEPAN's members had no doubt that he was personally responsible for

¹²² See, for example, "Editorial," *PC* No. 1 (November 1957): 5.

¹²³ *Ibid.*

INA's corrupt dealings was made explicitly evident when Villamarín defended the existence of this regulating agency by noting that to fulfill its challenging mission, it needed a specific kind of person in charge – “a practical economist and not a usurer, a man of social sensitivity and not a dealer in hunger.” Stepping up the rhetoric a notch, he further claimed that it was precisely his nefarious activities that led “the country's bakers at their Eighth Congress to declare Mr. Enrique Vargas Nariño *persona non grata* to the Colombian people.” While another report in that issue had declared him unwelcome by the bakers, Villamarín extended that ostracism to everyone in Colombia.¹²⁴

When ADEPAN's bakers protested increasing living costs and the attendant exploitation of the poor and working classes by the more powerful and wealthy, they did not invent these issues or exaggerate to make their point. But, in their efforts to discredit INA, they did make strategic use of the discourse on prices and inequality circulating at the time. For example, in that same issue, ADEPAN reprinted a manifesto produced by a union of bank employees affiliated with the Banco Francés e Italiano. The manifesto argued that although unions had been successful in recent years in helping employees achieve salary increases, living standards had not improved as a result. Costs for consumer goods far outstripped wage and salary increases. Rising prices of staple goods was particularly onerous. The banking union stressed that those rising costs stemmed from diverse factors. Inequitable land distribution, inadequate roads from rural areas to cities, insufficient production, antiquated agricultural

¹²⁴ Ibid.

machinery, poor soil conservation, and lack of technical expertise all contributed and could only be solved through land reform, “something that the majority of Colombians believe should happen.” Speculation was also a primordial problem. The bank employees lamented the times that farmers had brought their goods (such as eggs, chickens, cheese, and butter) directly to consumers in local markets, only to have resellers descend “like birds of prey,” buy everything at once and then re-sell it with a “5, 80 or 100 percent mark-up.” Often they let things rot rather than sell them for anything less than a ridiculously jacked-up price. Adding insult to injury, large-scale manufacturers and the national government lied during times of crisis. Pleas to consumers that price increases were necessary were accepted with the understanding that when conditions improved, prices would fall. But, they never did.¹²⁵

The bank employees noted that these problems had both long- and short-term solutions. The manifesto was their initial step in a campaign to spur the government to implement the short-term ones. Mainly these focused on heightened enforcement of existing laws regarding speculation and ensuring that farmers had access to markets. INA was the only governmental agency mentioned by name. In one short line at the very end of the long manifesto, the bank employees demanded that INA ensure that prices were properly regulated.¹²⁶

INA was certainly a primary agency in charge of such a governmental function, but it was not the only one involved in controlling prices or improving conditions for Colombia’s farmers. Nevertheless, that one mention in one line at the very end of the

¹²⁵ “Que el INA regule precios piden entidades gremiales,” *PC* Nos. 26-27 (May-June 1961): 70.

¹²⁶ *Ibid.*

manifesto led ADEPAN to reprint it under the title “Unions Ask INA to Regulate Prices.” While this was technically true, that had hardly been the manifesto’s primary focus. But, for ADEPAN, third-party confirmation obviously strengthened the argument that ran through the entire May 1961 issue of *El Panadero Colombiano*: INA was working for the millers, the oligarchs, and the powerful financial and industrial interests, and thus, not a friend to the artisans, workers, small farmers, or the majority of consumers.

This theme ran through almost every article of that issue, which was lengthier than most. ADEPAN even departed from its usual seriousness and published a caricature of the situation with INA. Prior to the Congress, the directors had received a communication from “Quico” París Arbelaéz, ADEPAN’s Administrative Manager, or as they referred to him, their “King of Accounting and Wizard of Quarterly Reports.” Rather than the check they were expecting, the communication consisted of a letter by París Arbelaéz which took humorous stabs at INA. The directors were so delighted with the letter, they sent a copy to “our friend Don Enrique Vargas Nariño” and asked París Arbelaéz to read it aloud at the Congress, which he did, apparently to great applause. “The bakers, who are second only to President Lleras in moving dough around the country,” the letter’s second paragraph read, “have a problem with the Instituto Nacional de Abastecimientos, led by Enrique Vargas Nariño.” And it wasn’t just the bakers of ADEPAN, as the next paragraph noted. A few months earlier, the bakers of a “parallel association,” a local one to which Bogotá’s “bread oligarchy” belonged, had mounted a campaign against INA, or “more concretely, against its manager.” But, their

movement “lacked heat or yeast, and never rose, staying flat like any cake without the wonderful characteristics of a Ramo Cake.”¹²⁷

Not to worry, the letter continued: FIP and ADEPAN had joined forces to battle INA. From then on, it seemed that Vargas Nariño would be on the run – he had lost the masses, the letter declared, using the Spanish term “masas,” which means both “dough” and “masses.” In other words, the popular classes were in line with the bakers, and their campaign was likely to pulverize him, or, as the letter put it, “turn him into flour.”¹²⁸

The next paragraph took a slightly more serious turn. Alarming reports had been received that INA’s offices on the Atlantic Coast contained more than three thousand bags of rotting national flour, filled with boll weevils. Worse still, INA was forcing the bakers there to buy it anyway. At the same time, it refused to sell them any American flour, which they needed to mix with the national, in order to make palatable bread. In other words, the letter argued, INA was making the people on the Atlantic Coast pay for its own distribution mistakes, “condemning them to consume damaged flour.” The humorous tone then returned. Based on ADEPAN’s baking expertise, it seemed that the only thing the coastal bakers could do was to invent a new type of roll, flavored with boll weevils, which was “very different from the kind we consume here, flavored with toasted pork skin.”¹²⁹

¹²⁷ “El INA y Contrapunto,” *PC* Nos. 26-27 (May-June 1961): 33. “Ramo” was the name of a famous brand of pre-packaged snack cakes, called “Ponque Ramo,” one of the most widely consumed wheat products in Colombia at the time (and to the present day). Its owner, Rafael Molano Olarte, was a member of ADEPAN’s board of directors. See, “Glosario del mes: Progreso de una industria,” *PC* No. 29 (August 1961): 4.

¹²⁸ *Ibid.*

¹²⁹ *Ibid.*

The letter ended there, to great applause. Two bakers from the coast responded with a short ditty of their own, which playfully teased that París Arbelaéz had “mischievous little eyes that look like rolls with toasted pork skin.”¹³⁰ Regional jesting aside, the coastal bakers agreed with the general thesis of the Congress – although they did blame millers as much as INA, believing that the two were in cahoots, working together to make huge profits at the expense of Colombia’s “humble people.” Like Villamarín’s editorial, there was no subtlety in their accusations, which specifically charged INA and the millers with raising cost of living, an appalling situation, considering that INA was a “semi-official entity and in that capacity has contributed to the destruction of the baking industry.”¹³¹ The Cundinamarca section was equally frustrated and accusatory, adding that INA provided shoddy regulation of the milling industry – which meant that millers could grind grain to one hundred percent extraction, if they felt like it. This, of course, would result in completely useless flour for almost any purpose.¹³²

Without a doubt, however, the strongest denunciation of INA came from a representative from Medellín. Recall that in late 1959 Francisco Montoya, a member of ADEPAN’s board of directors, had been named director of ACOPI, a national

¹³⁰ Ibid.

¹³¹ “La Costa Atlántica fijó su criterio en el VII Congreso de Panificadores,” *PC* Nos. 26-27 (May-June 1961): 31.

¹³² “‘ADEPAN’ Seccional Cundinamarca: Sus asambleas generales – Informes y actividades,” *PC* Nos. 26-27 (May-June 1961): 48-52. One milling concern was exempted from this criticism. During the first plenary session, several members moved that ADEPAN send official greetings to Peregrino García, the owner of the Empresa Harinera del Caribe. This coastal mill was lauded as “an example of a miller who has truly collaborated with bakers.” The summary of the minutes do not indicate precisely how García collaborated, although it was likely through grinding flour according to the bakers’ specifications. Acceptance of the proposal was only achieved after two other millers were included – Rafael del Castillo and the owners of Molinos Roncallo. See, “El VII Congreso de ‘ADEPAN’ fue un éxito y una Promesa de Lucha contra los Enemigos del Gremio de la Panificación,” *PC* Nos. 26-27 (May-June 1961): 8-14.

association representing small businesses. A few months later, Montoya was elected president of ADEPAN's board. With two such prominent positions in organizations representing small businesses, Montoya's commitment to protecting the interests of those small manufacturers was clearly very strong. This commitment was highly evident in his president's report at the Congress.

During the first few months of 1960, Montoya had spent a great deal of his time in dialogue with Vargas Nariño and Gilberto Arango Londoño, the Minister of Agriculture. Much of this dialogue took place during official INA meetings; as Minister, Arango Londoño was an ex officio member of its board of directors. Montoya labored to make the Minister understand the problems of the nation's bakers, repeatedly pointing out that most of them were caused by INA's haphazard importation and distribution policies. Sadly, just when Arango Londoño seemed to have finally begun to understand the bakers' problems and was demonstrating interest in learning more and coming up with a solution, he was pushed out of the Ministry and replaced by Otto Morales Benitez. A lawyer and academic, Morales Benitez had previously served in Lleras Camargo's administration as Minister of Labor. In that position he had championed widely popular labor reforms. When he moved to Agriculture, he picked up where Arango Londoño had left off, dedicating himself to the implementation of land reform. While ADEPAN certainly supported the idea of land reform and believed that it was a necessary part of the long-term solution to their flour problem, Montoya expressed disappointment that Morales Benitez seemed to have no interest in other issues under his jurisdiction as Minister of Agriculture, particularly the short-term ones that directly

affected the bakers, such as import policies. Montoya lamented Colombia's "disconcerting instability in public offices [which] don't allow anyone to achieve any constructive work to help any sector of the national economy."¹³³

Constant Ministerial changes was only the beginning of his disillusionment with the national government, which he accused of being the cause of most of the country's problems, especially the bakers. Montoya presented himself as someone who had been loyal to the government under the leadership of Lleras Camargo, but had grown weary of having the concerns of his industry ignored:

I am allergic to the idea of creating problems for the Government and perhaps my only sin consists of having been excessively Frente-Nacionalista and an unconditional admirer of the current government, but I would be a traitor to our cause and to the trust that you all have placed in me, if at this Congress, I did not raise my voice to protest official negligence, not only for not resolving our problems, but for not even listening to them.¹³⁴

Montoya described the collaborative campaign ADEPAN had recently initiated with FIP. To draw the public's attention to their plight, the campaign began with a manifesto indicating that, although they highly regretted having to do so, the bakers were considering going on strike. The response was rapid, but not what the bakers expected. Articles and editorials opposing this strike appeared in respectable newspapers, written by authors "of good conscience, but who have no insight into the situation." These writers declared that such a strike would be illegal, because the baking industry, like public transportation and banks, was a public service. In the published

¹³³ "Informes Rendidos al VII Congreso Nacional de 'ADEPAN' por su Directivos y Fiscales: Informe de Don Francisco Montoya como Presidente de la Junta Directiva Nacional de 'ADEPAN' - Sesión del 6 de Abril," *PC* Nos. 26-27 (May-June 1961): 22-24.

¹³⁴ *Ibid.*

text of Montoya's presentation, the words "public service" were printed in bold and all capital letters, as if to visually express his incredulity.¹³⁵

His surprise at such a response, however, was not owing to his disagreement with the idea of the baking industry as a public service. On the contrary, he and several lawyers with whom he had consulted all agreed that it was. What left him flabbergasted was that the government didn't protect it more effectively, especially if it was now going to be considered a public service. He asked why the government hadn't ever set an official price for flour or established milling standards that met the needs of the baking industry. Sugar and other basic items were subject to official control, he pointed out. It made no sense to not do the same for flour.¹³⁶

Once again, Vargas Nariño took the blame. Montoya noted that he had been director of INA for a long time, was thus fully conversant with the industry's problems, and had a lot of power within that organization. His insinuation was clear: if anyone could solve INA's distribution problems it was Vargas Nariño; the fact that the problems continued meant that he was uninterested in finding any solutions. Montoya prefaced his subsequent indictment with the statement that ADEPAN was always ready to work with him to find solutions that worked for everybody. But, he charged, Vargas Nariño wanted no part of collaborative problem-solving: "Unfortunately, INA's manager does not tolerate disagreement with his way of thinking [whether it's] by the bakers, millers, or any other entity. The only people who prosper under him are those

¹³⁵ Ibid.

¹³⁶ Ibid. Baking as a public service is not a new idea. As E.P. Thompson noted, in eighteenth century England, both bakers and millers "were considered as servants of the community, working not for a profit but for a fair allowance." See Thompson, *Customs in Common*, 194.

who adjust themselves to his exclusive and personal perspective.” Two further points providing the damning evidence that Montoya needed to make his case: although Vargas Nariño had been invited to the Congress, he chose not to come and he refused to implement any of the recommendations made in the study by Durham and Seeborg the previous year, claiming that it was “a biased report, written under the influence of North American milling interests.”

Just as other participants in the Congress decried the injustices perpetrated and permitted by INA, Montoya also made similar charges. To demonstrate the bakers’ willingness to compromise and work collaboratively, he noted that ADEPAN did not object to the consumption of national flour; in fact, it was fully in favor of using home-grown wheat, as long as it could be combined with a small amount of imported flour. Similarly, it did not completely oppose INA’s policy to discontinue importation of “qualified flours,” certain kinds of flour with lighter import restrictions. It did object, however, to the discontinuation while the nation’s millers refused to update their production methods. It also strenuously objected to a prevailing double standard in import policies. Large industrialized cracker and cookie-making companies such as Noel and La Rosa, and pasta manufacturers were still permitted import to those qualified flours, despite the fact that they could be produced in Colombia, if the millers chose to do so. For Montoya, such a discriminatory policy was both unjust and anti-democratic. As he declared, “Or the law applies to everyone, or it applies to no one.”¹³⁷

¹³⁷ Ibid.

Further evidence that INA was working against the bakers came from several recently published newspaper articles. They asserted that Colombia's bakers were a "privileged and exploitative oligarchy" complaining about the discontinuation of the qualified flour imports because it "took a profitable business out of their hands." Furthermore, the baking oligarchy had been enriching itself at the expense of the Colombian people by making bread that consisted of only 30% flour. With baking soda as the primary ingredient, the bakers were robbing Colombians of essential nutrients. Montoya accused INA of planting these articles to discredit the bakers. He then reminded the Congress attendees of the oft-repeated composition of Colombia's baking industry – 85% small, artisanal businesses, with an average of ten employees (most of them family members) and total capital of no more than \$20,000 pesos. Another 12% were medium-sized, partially mechanized businesses with capital of approximately \$50,000 pesos. Only 3% were highly mechanized operations with over \$100,000 pesos in capital.¹³⁸

Montoya was outraged at such accusations and countered that the true exploiter of the Colombian people was the Colombian state. It saw hunger as a cash cow. Rather than promoting national production and permitting limited imports, it preferred to allow humanitarian organizations such as CARE and CARITAS and the Kennedy administration's new Food for Peace program to import significant quantities of flour and wheat products to distribute to Colombia's poor. For the national state, Montoya claimed, this represented a windfall in tariff duties – over fifty million pesos, far more

¹³⁸ Ibid.

than the annual income of all of Colombia's bakeries combined. Montoya condemned such a disgraceful state of affairs: "Isn't it sad, gentlemen, that our Government has to strengthen its bottom line with massive taxes on the wheat and flour used to make our daily bread, while it is foreign powers who come to the relief of our people?" The contrast Montoya drew with other countries that had wheat deficits was stark. Rather than charging taxes on wheat and flour imports, they let them in duty-free and, in fact, subsidized their importation, in order to keep bread prices low. In sum, Montoya created a vision of an uncaring, anti-democratic state, enriching itself at the expense the nation's poor and working classes.¹³⁹

To reinforce Montoya's depiction of Colombia's bakers as small artisans rather than the oligarchs Vargas Nariño purportedly claimed them to be, in addition to the numerous and lengthy reports from the Eighth Congress, that issue of *El Panadero Colombiano* also included a photo essay on the baking industry. It was descriptively titled "Such are our Bakeries. An incipient industry lacking modern mechanization. Small factories which employ many workers and where the very owners work like a good wage laborer." Several photos depicted people at work in various baking tasks. One showed a man tending to a brick oven with the caption "The baking industry is not a sector of speculation: it is a trade of much activity and little remuneration." Although the oven was built into a brick wall, suggesting older technology, the man was using a type of diesel-powered blowtorch to heat it. In contrast, the opposite page showed a man putting a tray of rolls into an electric oven. Its support wall was missing some tiles,

¹³⁹ Ibid.

and trays of rolls lay haphazardly around it, some on shelves, others on the floor.

Unlike in the other photograph where empty trays were neatly stacked up on a large shelving unit, empty trays in the second one were lined up in a row on the floor in front of the electric oven. A pat depiction of progression from old to new technologies this was most definitely not. The photographs explicitly illustrated the claims in the photo-essay's title: this was an industry with an incomplete transition to modern techniques and technologies. And if the photographs didn't make that clear enough, the caption above the photo with the electric oven reinforced the message. While it began with the simple statement that the photos showed the two most common baking systems and named each of them in order, it quickly dispelled any notion that the electric one was the better system by including a small critique – it didn't work during times of energy rationing.¹⁴⁰

The accompanying text of another photo further drove this point home. In the photograph, two men stand side-by-side, each working at a different baking machine. The text indicated that one was a dough moistener and the other a cylindrical dough mixer, both powered by a DC electrical system. These represented “some mechanized elements” that were used in bread production. The emphasis was clearly on “some” – as the text noted: “In Colombia there is still not one bread factory that is completely mechanized.” This was not for lack of interest on the part of bakers, the text indicated – both owners and workers aspired to use “modern advances.” What held them back was

¹⁴⁰ “Así son nuestras Panaderías. Industria incipiente carente de mecanización moderna. Pequeñas Fábricas a las que están vinculados muchos trabajadores y donde el propio dueño trabaja como buen jornalero.” *PC* Nos. 26-27 (May-June 1961): 42-45.

financing; bakery owners and workers would like to mechanize, but could only do so “as far as their economic resources would allow, being that we bakers are all poor, and the few capitalists [among us] have made their fortunes in other activities.” The combined impact of such statements along with the framing of the photographs, in which only one or two individuals appeared, rather than a factory floor of workers, powerfully conveyed an image of the baking industry as a small-scale, family-run, artisanal industry.¹⁴¹

The combination of all the comments made at the Congress and the visual representation in *El Panadero Colombiano* worked together to effectively consolidate ADEPAN’s image as an industry of small business owners, rather than oligarchs. Yet, by the end of the year, ADEPAN changed direction and labored to revise its public persona, emphasizing efforts to increase mechanization among its member bakers, and the larger scale of their operations. Recall the fine line that ADEPAN walked between its competing images as an association of artisan bakers with little access to power and one of small manufacturers with enough political clout to successfully lobby the state to benefit its members. Depending on the circumstances, ADEPAN played up one or the other of these images. But what had changed to precipitate this revised strategy by the end of 1961? Several factors worked together to lead to this change. Some were broad societal changes, such as an altered political dynamic, while others were more particular to ADEPAN, although still connected to the larger economic and political context in which it operated.

¹⁴¹ Ibid. The other photograph and accompanying text in this series added to this image. It focused on women in the bakery, pointing to the importance of family labor in these enterprises.

To begin with, the establishment that year of the Colombian Land Reform Institute (INCORA), combined with a shift in leadership at the Ministry of Agriculture and changes in import policies, led to improved relations between ADEPAN and INA – or at the very least, less adversarial ones. In fact, just two short months after the May issue, which skewered INA from all angles, the bakers had changed their tune, praising the agency for its efforts to combat the speculators that had plagued them. Never mind that only two months before they had directly accused INA of being the country’s primary speculator – it had changed its policies, allowing monthly wheat imports, and this meant that for the bakers, INA was now on their side (and apparently no longer speculating).¹⁴²

This change in import policies coincided with the establishment of INCORA and the installation of a new Minister of Agriculture. Both of these factors boded well for the bakers. From the beginning of the Lleras Camargo administration in August 1958, the primary goal of two of his three Ministers of Agriculture had been instituting land reform. Following the rural violence of the 1950s, alleviating the factors that were believed to have fomented it in the first place was obviously a top priority. Overcoming inequitable land tenure was at the very top of that list. While it had been on the agenda of Lleras Camargo’s first Agriculture Minister and the primary goal of his second one, it was the obsession of his third, Otto Morales Benitez. Recall that Francisco Montoya, ADEPAN’s president, had complained about the instability in cabinet appointments in

¹⁴² “Una medida benefica para los panificadores,” *PC* No. 28 (July 1961): 5. INA also changed its policy to allow wheat to be distributed throughout the country based on the needs of individual mills and not on whether a certain mill was located in a productive or non-productive zone.

his report at the Eighth Congress. Nevertheless, the installation of a new Minister later that year was likely received as good news for Montoya and the rest of ADEPAN's leadership. In a speech outlining the National Front's agricultural policy, the new Minister, Hernando Toro Agudelo, emphasized the role of the state in protecting "the weak" in society, but said nothing about land reform. He spoke instead about requiring obligatory consumption of nationally grown agricultural products and setting official prices for basic items and staple goods. He asserted that combating stockpiling and speculation was one of his Ministry's primary functions. He reminded his listeners that the stated economic goal of the Lleras Camargo administration was to equitably redistribute income. In other words, he touched on many issues dear to the hearts of the bakers of ADEPAN. Moreover, the fact that the Land Reform Institute had been established that year meant that the new minister could devote more of his attention to solving all of these other societal needs.¹⁴³

The establishment of INCORA also changed the political dynamic for ADEPAN in another crucial way. With land reform institutionalized, ADEPAN's need to emphasize that its members were not oligarchs or wealthy aristocrats was diminished. Simultaneously, the growing economic instability that would eventually lead to a series of peso devaluations during the subsequent presidential administration focused more attention than ever on imports. Under these two circumstances, ADEPAN's interests were better served by returning to a discourse of modernization when it spoke of the baking industry, in an attempt to portray it as an important sector of the Colombian

¹⁴³ "Política agropecuaria del Frente Nacional: Discurso del Sr. Ministro de Agricultura Dr. Hernando Toro Agudelo," RNA 45 (November 1961): 9-13.

economy, and hence, one that should be given priority when it came to importation of machinery and raw materials.

This was reinforced after the return of the Colombian delegation from the baking industry exhibition in Atlantic City that October. The denial of their request for import licenses for new baking machinery stung. As Montoya opined, if the functionary who had told them that Colombians were already eating good bread and didn't need fancy new machinery to improve it had had the opportunity to see for himself how much more advanced the baking industries of the United States, Europe, and even Mexico actually were, he would have sung a different tune.¹⁴⁴ Since he did not, it now behooved ADEPAN to demonstrate to the national government how important those import licenses were.

But, it could not do so by simply continuing to demonstrate how the baking industry was only partially mechanized, as it had so effectively shown in the May issue of *El Panadero Colombiano*. Although the portrayal was not incorrect, it was also not the slant that would effectively solidify the bakers' case that they needed new machinery. The May portrayal was ultimately rather negative. There was transition, but it was sporadic, incomplete, and improvised. This could have generated an image of bakers as interested in mechanizing, but only in a haphazard way, with lack of foresight to ensure success with the new machinery and baking techniques. A different portrayal was necessary.

¹⁴⁴ "Luís A. Rodríguez habla sobre: La Exposición Industrial de Atlantic City," *op. cit.*

Isidoro Pinzón helped them achieve it. Pinzón was the owner of Pan Fino (“Good Bread”), a combined bakery and soda fountain, located in one of Bogotá’s more exclusive neighborhoods, at 54th Street and Seventh Avenue. The December issue of *El Panadero Colombiano*, the same one that reported on the Atlantic City exhibition, published a profile of Pinzón and Pan Fino. The contrast with the partially mechanized bakeries profiled in the May issue could not have been starker. From the very title – “With European Systems, ‘Pan Fino’ Makes the Best and Most Nutritious Bread in the Capital” – ADEPAN established that this was not a haphazard operation. Pinzón had worked diligently over thirteen years to build a small bakery empire, amassing a “fortune of over one million pesos” – a fortune he began in 1948 with an investment of \$3,000 pesos in some old machinery that barely functioned. Starting with just two employees, his bakery had grown to thirty-nine. At first, he had only a few customers, but by 1961 his “luxurious establishment” served thousands of people daily. The barely functioning machinery he initially used had all been replaced with more modern equipment, and at the time of the profile, he was in the midst of a sizeable expansion, involving the importation of \$300,000 pesos worth of new machinery from Denmark, which he planned to install at a new bakery he was opening in a neighborhood even further to the north, at 83rd Street.¹⁴⁵

¹⁴⁵ “Con sistemas europeos, ‘Pan Fino’ elabora el mejor y nutritivo pan de la capital,” *PC* No. 30 (December 1961): 6-8. Although the area near Seventh Avenue and 54th Street in Bogotá, where Pan Fino was located, is now a middle-class neighborhood, in 1961 it was more recently part of the northward expansion of Bogotá’s wealthiest classes away from the city’s traditional center. At the time, in fact, the private residence of president Lleras Camargo was only about fifteen blocks away.

All of these tangible measures of progress were matched by the intangible ones evident in the operation of his 54th Street Bakery. As the profile's author noted:

A tour of the building where Bogotá's best bread is currently made gives the sensation of order, discipline, absolute hygiene, constant supervision of the operating systems, absolute control over the orders that come from the managers and production bosses, and, basically, a dynamic and integral adoption of what needs to be done to maintain hard-won prestige. In 'Pan Fino'...nobody is standing still. Everyone, from the very owner, is making something, and something good.¹⁴⁶

Testifying that he saw this with his own eyes, the profile's author observed that despite Pinzón's technological advances and great fortune, there was still a humbleness about him, a simplicity that manifested itself in the fact that he had done every job there was to do in the bakery, and still got his hands dirty every day doing manual labor. To reinforce the image of Pinzón as a simple, hard-working man, he appeared in only one photograph, dressed in his white baker's uniform, looking away from the camera and sitting informally in a chair talking to the interviewer (dressed, in contrast, in a suit and tie). Moreover, he was not just a good businessman. He was a solid citizen, a dedicated family man – he proudly declared that his wife had worked at his side from the beginning and that he owed all of his success to her. The profile included a photograph of his three smartly-dressed children and indicated that they were the source of his great happiness.¹⁴⁷

The other photographs in the series visually represented the industriousness of Pan Fino. No matter what the workers in each one of them were doing, numerous trays of rolls or loaves of bread surrounded them. In one particular photograph, the visual

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

effect of rows and rows of rolls stacked on a cart from the floor to several feet above the workers' heads was stunning. Another showed the bakery's storefront. Three women worked behind the counter, which was jammed with customers eyeing the trays of bread for sale.¹⁴⁸

Pinzón was a perfect new public face for ADEPAN not only because of the success he had already achieved. As his expansion to 83rd Street suggested, he was not content to rest on his laurels. Although he claimed that he was satisfied with what he had accomplished thus far, he also believed that there was still more to do: "I keep thinking that our capital deserves better products and we will provide them." In that vein, he praised the newly established baking school, a collaborative program between ADEPAN and SENA. Colombian bakery workers had no training, he asserted, and had only achieved anything at all because they were "very good, very intelligent...and have a sense of responsibility." Trained bakery workers would offer a great service to the nation, he argued, essential if it was to advance at all. He saw his own expansion plans as an integral part of national economic development:

My future plans are really quite simple, but of absolute importance, because I have always thought that only by producing something good will the country achieve the development that reflects its importance in the concert of most advanced nations and be able to offer revolutionary systems that will give us a pre-eminent place in the world.¹⁴⁹

The change in tone from the May depiction of the baking industry is dramatic. While Pan Fino was exceptional in many ways, it was still struggling to modernize, just like the more artisanal bakeries previously highlighted. But the earlier photo essay had

¹⁴⁸ Ibid.

¹⁴⁹ Ibid.

none of the heroic imagery of the profile of Pan Fino. Although the other bakery owners and workers were toiling just as hard, and adopting as much new technology as they could, they were not presented as part of the nation's great economic future, held back from helping the country reach its rightful place on the global stage by insufficient training and mechanization.

Presenting the daily activities of Colombia's bakers on such a higher level strengthened the portrayal of the rejection of ADEPAN's import licenses as a major injustice. Like Pinzón, the delegates to the Atlantic City baking exhibition were trying to help ensure progress for the entire nation, not just for their own businesses. Denying their request was thus not only an injustice toward the bakers, but an unpatriotic act directed at the entire nation.

And if that wasn't enough, there was a deeply moral component to the issue as well. Providing bread was a charitable act, a symbol of compassion and concern for others. To make this message very clear, ADEPAN published an excerpt of the Pope's Christmas Message for 1961. "Share your bread with those who are hungry," the first line of the excerpt read.¹⁵⁰ Reinforcing this message was a photograph of President Lleras Camargo at a fundraising dinner for a housing project in one of Bogotá's poor neighborhoods. The photographer captured the president sitting next to Father Rafael García Herreros, both of them with a piece of bread in their hands. The caption noted that two of Colombia's beauty queens served the bread to the dinner's participants, "like at the Last Supper." Granted, this was December and a time when many were

¹⁵⁰ "Palabras del Papa Juan XXIII en su mensaje de Navidad para 1961," *PC* No. 30 (December 1961): 17.

focused on the religious holiday and its meaning. But, such overt religious references had not appeared in other December issues of *El Panadero Colombiano*. The December 1957 cover greeted readers with “Merry Christmas and Happy New Year,” accompanied by an illustration of a candle and holly leaves. That issue also reprinted an article that had originally appeared in the newspaper *La República*, praising ADEPAN for the charitable drive it was organizing for poor families. But, there was no other mention of the holidays. The following year, the only seasonal reference appeared in an advertisement; a margarine producer thanked its customers for a great year and wished them future prosperity. In 1959, the holidays weren’t mentioned at all. The only item not related to the Colombian baking industry that appeared was a love poem by Pablo Neruda.¹⁵¹

It is intriguing that the only times *El Panadero Colombiano* mentioned the holidays over the course of five years was in reference to charity for Bogotá’s less fortunate. The first, in November 1957, appeared when the industrial bakers of FIP had not yet separated from ADEPAN and the organization worked hard to portray baking as a major, large-scale industrial sector in Colombia (as discussed in chapter 3). This was during the transition from the Rojas Pinilla dictatorship to the military junta that replaced him and then to civilian rule under the National Front. At the beginning of Lleras Camargo’s administration, he worked with Colombia’s major business associations to establish a “gentlemen’s agreement” focused on restoring the nation’s

¹⁵¹ “Felices pascuas,” *PC* No. 2 (December 1957): cover; “La campaña de ADEPAN,” *PC* No. 2 (December 1957): 18; “Muchas gracias,” *PC* Nos. 13-14 (November-December 1958): 1; Pablo Neruda, “Poema 20,” *PC* No. 20 (December 1959): 19.

economy, which had been battered by both the coffee bust of the late 1950s and the fiscal mismanagement of the Rojas Pinilla years. ADEPAN's efforts to portray the baking industry as a large one helped secure it a place at the table where the agreement was hammered out.

The second came in late 1962, after land and labor reforms had been implemented and the new Minister of Agriculture signaled that his administration would focus on import policies and better protection of the nation's agricultural products. These were issues in which ADEPAN clearly had a direct and significant stake. But it also signaled a shift in the Ministry's overall priorities for the Colombian countryside from an emphasis on social justice to development of the national economy. For the bakers of ADEPAN this meant shifting their public image from one of an organization of small artisans who needed state protection to one of small manufacturers who played an important role in the nation's economic development. Charitable acts by bakers helped to cement this transformation. As pointed out earlier, the ability to provide for others meant that bakers occupied a higher position in society. Thus, it is notable that *El Panadero Colombiano* mentioned the holidays and the connection between bread and charity only at those two different points in time when it was making the case that bread-making was an important manufacturing sector whose interests needed to be protected not because bakers were weaker members of society but precisely because of the strong role they played in developing and maintaining the national economy.

Definitively asserting that ADEPAN's attempts to manage its public image helped it achieve its goals is untenable. The same can be said for its heavy criticism of INA. But, one thing that is certain is that just a few months later *El Panadero Colombiano* lauded the signing of a formal agreement among the four main associations with a stake in the issue of imported wheat and flour. In March 1962, representatives from ADEPAN, FIP, FEDEMOL, and ASEMOLPRO met several times to discuss their competing interests and mutual problems. Eventually they hammered out an agreement on flour production designed to help them all equally. The terms of the agreement were very specific.

From then on, every month INA was to import 1,200 tons of high-quality wheat designed specifically for making bread. INA was to consult with millers on what constituted "high-quality" for their milling purposes. INA was to then distribute it immediately to those mills around the country that were affiliated with one of the two milling associations, in quantities proportional to their productive capacity rather than geographic location. Mills were then to grind the grain to 72% extraction, following the specifications laid out by bakers. Within fifteen days of receiving the grain, millers were to distribute it in the form of flour to ADEPAN and FIP in quantities proportional to how much each of the association's members required. Payment was to be made immediately. The same held for further distribution of the flour – member bakers were to pay ADEPAN or FIP immediately for their purchases. In the regions where ADEPAN and FIP did not have warehouses, bakers were to buy the flour directly from affiliated millers. Those bakers had thirty days to do so voluntarily; if the mills were still in

possession of the flour after that point, then ADEPAN's bakers would have to buy it whether they could store it or not. Prices were pre-set, both what INA could charge the millers for grain and what the latter in turn could charge the bakers for flour. To ensure quality, the Institute for Technological Research was to certify that the flour met baking standards. Mills that failed to follow the agreement's stipulations would no longer receive the high-quality grain INA imported. Finally, to keep the agreement from falling apart, INA would "obligate" unaffiliated mills to make the high-quality flour and sell it exclusively to FIP or ADEPAN, rather than to unaffiliated bakers. The agreement did not specify how this obligation was to be enforced.¹⁵²

What led to this agreement? Did INA respond to the heavy criticism it had received at the hands of ADEPAN's bakers the previous year? Was ADEPAN's collaboration with FIP crucial to gaining INA's ear? Did the revamped image of the baking industry have an effect? Did the new Minister of Agriculture fulfill his promise and put pressure on INA to control speculation? No doubt, all of these were contributing factors; not one of them on their own would have been sufficiently powerful to lead to this agreement.

The effect it had on ADEPAN was striking. Successfully negotiating with the powerful milling interests emboldened the bakers. Although still representing largely family-run businesses of artisan-bakers, ADEPAN's leaders were presented as equals to the powerful interests that had given them such headaches over the previous years. It is

¹⁵² "El doctor Douglas Botero Boshell y don Luís A. Rodríguez," (photo caption) *PC* No. 31 (March 1962): unpaginated; "Convenio sobre producción y entrega de Harinas Calificadas Especiales, que reemplazan las Harinas Importadas," *PC* No. 31 (March 1962): unpaginated.

telling that the issue introducing the agreement put individual photographs of “The Gentlemen of the Agreement” on the cover. Four “gentlemen” were included: Douglas Botero Boshell (FEDEMOL), Pedro M. Arenas (ASEMOLPRO), Luís A. Rodríguez (ADEPAN), and Hector Izquierdo (ADEPAN). Note that two representatives from ADEPAN were placed on the cover, while Jaime Arrázola Lombana from FIP was not. Izquierdo was ADEPAN’s legal advisor and he was credited with being the architect of the agreement.¹⁵³ Similarly, photographs of various meetings that took place that month showed ADEPAN representatives either consulting together with each other or meeting with representatives of the milling associations; representatives from FIP appeared nowhere.¹⁵⁴

The agreement also spurred ADEPAN to redouble its efforts to promote modernization within its industry. At its annual congress in March 1962, the emphasis was on training and technology, while flour supply, availability, and distribution were not even on the agenda.¹⁵⁵ That same month, the Great Plains Wheat Market Development Association sent representatives to Colombia to visit the baking school it had helped to establish in collaboration with ADEPAN and SENA. *El Panadero Colombiano* promoted the school announcing that Great Plains Wheat had begun to offer grants for bakers to attend.¹⁵⁶

¹⁵³ “Los caballeros del convenio,” PC No. 31 (March 1962): unpaginated.

¹⁵⁴ El doctor Douglas Botero Boshell y don Luís A. Rodríguez,” *op.cit.* Even more dramatically, ADEPAN’s depiction of Enrique Vargas Nariño changed radically. Now he was a loyal and dedicated public servant, to be congratulated for his “industriousness, integrity, and honesty.” See “Los caballeros del convenio,” *op.cit.*

¹⁵⁵ “Agenda para la reunión del IX Congreso Nacional de Panificadores,” PC No. 31 (March 1962): unpaginated.

¹⁵⁶ “Becas para panaderos,” PC No. 31 (March 1962): unpaginated.

All of these signs suggest that ADEPAN had truly finally come of age. That was certainly the image that the association wanted to convey. But, the agreement still existed only on paper. Foreseen and unforeseen problems would both rear their heads, and other sectors negatively affected by this agreement (such as Colombia's wheat growers and agronomists) had yet to weigh in or make their displeasure known. In addition, there were other powerful actors in the shadows, fighting among themselves and with their Colombian allies and enemies, to gain hegemony over Colombian economic development policies, and not in a way favorable to the bakers.

Conclusion

ADEPAN's success also carried the seeds of its destruction. Now that millers were producing the flour that it had insisted upon, the powerful incentive to become and remain a member, let alone an active one, decreased. Sadly, some bakers also undermined the organization, by sidestepping the "official" channels and purchasing the special qualified flour directly from millers at a reduced cost. Similarly, some chose to purchase flour that wasn't special qualified and were thus able to avoid paying extra to ADEPAN.

During the presidential administration of Conservative Guillermo León Valencia (August 1962 to August 1966), ADEPAN published only one issue of *El Panadero Colombiano* – in July 1966. By then, the next president, Carlos Lleras Restrepo, a Liberal,

had been elected. That ADEPAN was clearly most active during Liberal administrations suggests that there was a stronger connection to political parties and political processes than the pages of *El Panadero Colombiano* reveal. This concurs with other analyses pointing to the connections between Colombian artisans in general and the Liberal party.¹⁵⁷ But the four-year absence of their newsletter was not simply due to a change in presidential administration. The July 1966 issue lauded a “new era,” during which the bakers’ association would be restored to its former heights of unity and solidarity. But unlike previous years when ADEPAN officers and member-bakers themselves wrote many of the articles and edited the newsletter, the editor and primary author during the “new era” was a lawyer. He had been ADEPAN’s legal counsel for several years, but was not a baker himself. This alone suggests that the bakers were less interested in the organization than they had been previously. Moreover, the divisions that had clearly crippled the organization for several years had not disappeared, evident in his constant exhortations to the membership – he wrote article after article chastising the bakers for not participating in the organization. Although he made a valiant effort, *El Panadero Colombiano* ceased publication for good at the end of 1967, only one year after the “new era” began.

But ADEPAN did not disappear entirely during the administration of Valencia León. The agreement about “special qualified flours” eventually fell apart. At the same time, Colombian agronomists and Rockefeller Foundation wheat breeders continued to voice concerns about INA’s handling of imported wheat, millers’ refusal to purchase

¹⁵⁷ Sowell, *Early Colombian Labor Movement*.

domestically grown grain, and the Ministry of Agriculture's growing emphasis on commercial over alimentary crops. All of this came to head in 1964. To resolve the problem, the Ministry organized a "National Wheat Congress." All the major industrial associations, research organizations, and governmental agencies with some connection to the wheat industry in Colombia attended, including ADEPAN.

Although agreements favoring the interests of Colombian wheat growers and artisanal bakers emerged from that Congress, the country was already well down a path leading to complete reliance on foreign sources for wheat. To a large degree, at least as far as the bakers are concerned, this chapter points to the primary reason for their inability to clearly articulate and defend their interests. Unlike Bavaria, for example, which was able to create solidarity among all the brewing companies toward the goal of achieving self-sufficiency, even if it meant paying more in import duties, ADEPAN's membership was far more numerous and diverse. For a period of time, ADEPAN was able to generate some level of solidarity centered on a class-based discourse. This powerfully served them during a time of intense public protest by popular sectors.

But, the divisions within the organization, even after the departure of Bogotá's twenty industrial bakers, remained strong. Following the success of the special qualified flour agreement, ADEPAN's leaders immediately turned toward a modernization project within the organization. No doubt, these divisions prevented a truly unified class-based identity from emerging, presenting a challenge to a lobbying organization that had partly built itself around a class-based identity.

CHAPTER 6

Neither Bread nor Cookies: The Rockefeller Foundation's Collaboration with Colombian Wheat Promoters, 1956-1965

On April 29, 1960, the dinner conversation at the home of Mr. James Lankford, Assistant Agricultural Attaché in Colombia, was a bit strained. The dinner was held in honor of an economic study group that had come to Colombia from the United States. Among the invited guests was Ulysses J. Grant, the Director of the Rockefeller Foundation's Colombian Agricultural Program (CAP). Earlier that day, the study group had visited the CAP's main research site, the Tibaitatá Experimental Station, located in the Sabana de Bogotá. Grant had been unable to accompany the study group during their visit to the station, and had put Dr. John Gibler, a wheat breeder, in charge of the group's tour and meeting with the station's staff. As Grant later noted in his diary,

Apparently, most of the [meeting's] discussion centered around why Colombia should grow wheat when they could buy it cheaper than they can grow it. The members of the study group insisted that it was uneconomical for Colombia to grow wheat, while the staff of the CAP attempted to explain that, whether it was economical or not, Colombia was growing several tons a year and as long as they were doing so, the Foundation's job was to help them grow the best variety that can be grown.

Later that evening, the meeting at Tibaitatá came up during the dinner discussion at Mr. Lankford's home. According to Grant, one of the dinner guests, a Mr. Shoemaker, commented that "Dr. Gibler seemed to have a chip on his shoulder concerning the production of wheat in Colombia." Grant defended Gibler by informing Mr. Shoemaker that a commission from the Midwest Wheat Growers Association had been to Colombia not so long before and upon returning to the U.S. had published...

...a report with considerable erroneous information in it and we were not consulted about this report prior to its publication, neither were we consulted about the points covered in the report on the wheat improvement program.

Apparently, the pronouncement that cultivating wheat in Colombia was uneconomical that had been made at the earlier meeting was repeated to Grant following his defense of Gibler. Grant, as diplomatically as possible, responded by suggesting that, in light of the errors made by the previous commission, “we might expect John Gibler and others to have a small chip on the shoulder in this case.” He concluded his diary entry that day with the following observation:

It is quite obvious that the Colombian people with whom we work do not appreciate the types of so-called economic study groups that are repeatedly being sent to Colombia since many Colombians think their obvious mission [is] to sell American wheat here.”¹

This exchange between different groups of Americans in Colombia in 1960 illustrates an interesting twist to the story of the Rockefeller Foundation in Latin America and to the general narrative of development in the post-World War II era which posits that the power to define “development” and to set priorities lies in the so-called “First World.”² In much of the literature on the Rockefeller Foundation (RF) in Latin America, the Foundation is generally portrayed as the active agent, the Latin Americans as the passive ones. The Foundation sets priorities; the Latin Americans accept or reject them. The Foundation establishes programs; the Latin Americans carry them out or put up obstacles. The Foundation’s goals and objectives define success or

¹Rockefeller Archive Center (hereafter RAC), RF: Record Group 12.3, Diaries, Box 21, Ulysses J. Grant’s diary notes of April 29, 1960. All of the quotes from the previous page are from this source.

² Escobar, *Encountering Development*; Ferguson, *Anti-Politics Machine*.

failure; the Latin Americans' goals and objectives are rarely considered. While most of this literature does provide some historical context of the particular Latin American nation in question, it is often broad and cursory, generally there to provide the background necessary for understanding the Foundation's motivations for being in any particular country, and the advantages or disadvantages it had and the actions it took. The context is set up to provide a backdrop for the Foundation.

Obviously, this portrait of the literature on the Rockefeller Foundation in Latin America is painted with a broad brush: some studies do a far better job than others at weaving the context into the story so that the Latin Americans are not just "extras on the set." In addition, repeated use of the term "Latin Americans" papers over a great deal of diversity. To begin with, the RF operated a wide variety of public health, agricultural, and basic research programs in an array of Latin American nations, from Mexico to Brazil, Chile to Costa Rica, and most of the countries in between. While the overall goals and objectives of the leaders of these nations may have some broad similarities, the specific contours were different in each case. Moreover, the term "Latin Americans" is far too general to be truly useful. Subsistence-level farmers, cattle ranchers, wealthy wheat growers, university professors, municipal sanitation authorities, Ministers of Agriculture and Public Health - all these groups and more played a role at some level in shaping the contours of the various RF programs throughout Latin America. And they all had different points of view and different motivations that directed their dealings with the Foundation officers or programs. To lump them all into the category of "Latin Americans" is not only to erase their great

diversity but also to elide the significant differences among them in terms of access to the Foundation and ability to affect the course of its programs as well as the varying positive and negative effects that those programs may have had on their lives. But, the term illustrates the larger point, which, again, is that much of the literature on the Rockefeller Foundation tends to subtly or overtly place the various Latin American actors in a passive role next the active one of the Foundation.³

Similarly, this literature papers over the relationships between the officers and members of the various Rockefeller Foundation missions and other actors from the global North. Although the notion that no empire is monolithic is well established at this point, when it comes to the Rockefeller Foundation, it is often still presented as one part of a unified or solitary effort at global domination originating in offices in New York and Washington. In reality, in the 1950s and 1960s, the Foundation was at the center of a competition between two North American groups struggling for global hegemony: those promoting Green Revolution agricultural technologies for staple crops and those promoting the sale of U.S. surplus crops. Wheat was at the center of both

³ A representative sample of this work on the Rockefeller Foundation in Latin America includes: Christopher Abel, "External Philanthropy and Domestic Change in Colombian Health Care: The Role of the Rockefeller Foundation, ca. 1920-1950," *HAHR* 75 (August 1995): 339-376; Marcos Cueto, "Sanitation from Above: Yellow Fever and Foreign Intervention in Peru, 1919-1922," *HAHR* 72 (February 1992): 1-22; Cueto, *Missionaries of Science*; Marc Edelman, "Agricultural Modernization in Smallholding Areas of Mexico: A Case Study in the Sierra Norte de Puebla," *Latin American Perspectives* 7 (Autumn, 1980): 29-49; Fitzgerald, "Exporting American Agriculture"; Jennings, *Foundations of International Agricultural Research*; John H. Perkins, "The Rockefeller Foundation and the Green Revolution, 1941-1956," *Agriculture and Human Values* 7 (Summer and Fall 1990): 6-18. More recent works that provide a more nuanced portrait of the interactions between the Rockefeller Foundation and various Latin American actors, and often give equal weight to the agency, goals and activities of the latter include: Anne-Emanuelle Birn, *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico* (Rochester: University of Rochester Press, 2006); Cotter, *Troubled Harvest*; Matchett, "At Odds over Inbreeding."

these efforts: the Rockefeller Foundation's agricultural work is most associated with its wheat improvement programs in Mexico, India, and Pakistan (and rice in the Philippines) and one of the most famous agronomists in the world is Norman Bourlag, a Rockefeller Foundation sponsored agronomist, whose work developing hybrid wheat seeds earned him the Nobel Peace Prize in 1970. In the other corner, the United States P.L. 480 surplus crops disposal program had begun in 1954 as an effort to deal with growing surpluses following the resumption of European agricultural production in the post-World War II era and the breakdown of a series of international commodity agreements focused on stabilizing the wheat market. Although P.L. 480 was not exclusively focused on wheat, it constituted the vast majority of the surplus crops it offered for sale. The P.L. 480 program was designed to not only unload contemporary surpluses, but also, to develop long-term demand in developing countries. Thus, these two groups – the Rockefeller Foundation on one side, and the USDA and U.S. wheat growers on the other – were clearly at odds.

This chapter will examine one of the fronts in this global struggle for hegemony. Specifically, it will examine a series of conflictive interactions between representatives of the Rockefeller Foundation and of the USDA (and U.S. wheat interests) as they clashed over wheat production in Colombia. Their arguments and criticisms of each other demonstrate clearly that statements or analyses linking the Rockefeller Foundation to the U.S. government's imperial projects during the Cold War period cannot be accepted without hesitation, and in the process demonstrate the contingent and diverse nature of neo-imperial projects.

The Green Revolution at the Hotel Tequendama

Kenneth Wernimont was quite displeased by two things that happened on March 16, 1956, the second day of a twelve-day trip to review the progress of the CAP. The Assistant Director of the Rockefeller Foundation's Agricultural Sciences program in New York, he had spent the morning with Carlos Navarrete, an *ingeniero agrónomo* at the Caja Agraria, visiting its new seed handling plant at the Tibaitatá experimental station. In his trip diary, Wernimont made no mention, positive or negative, of the plant itself or its operations. He did, however, note that it was loading wheat seeds produced by the Caja into sacks partially labeled "Ministerio de Agricultura y la Fundación Rockefeller." A terse sentence followed that observation in his notes: "KW will discuss this with LMR."⁴ Why was this label so problematic that Wernimont planned to discuss it with Lewis M. Roberts, the director of the CAP?

There were several reasons. To begin with, the RF made considerable efforts to publicly disassociate itself from the Ministry of Agriculture, despite the depth of their collaboration. Partly this was based on political expediency. The RF worked hard to keep itself outside the fray of Colombian politics. Considering how polarized the parties were and how quickly political fortunes changed in the 1950s, too close an alignment with one party or the other would have seriously impeded the foundation's ability to achieve its goals in Colombia.⁵ Thus, publicly distancing itself from the Ministry of

⁴ RAC, RF, 1.2, 311, Box 2, Folder 11, Kenneth Wernimont's Diary of his March 1956 trip to Colombia.

⁵ This is not to suggest that the foundation or, more specifically, its individual representatives in Colombia, had no political preferences or affinities with members of one political group more than another. There is evidence to

Agriculture was essential for the Rockefeller Foundation. Although the Ministry was its principal partner in Colombia, the RF recognized how deeply politics permeated it. Wernimont noted this directly in his trip diary. Describing a conversation he had with Albert Waterston, Herbert Stewart, and Maurice Perkins, members of a World Bank mission in Colombia, who had been arguing that the national government needed to centralize its agricultural functions, which were dispersed across a variety of public and semi-public entities, Wernimont

...ventured the opinion that care would have to be taken in considering such a reorganization to insure (*sic*) that functions now relatively well protected by the non-political character of the Caja Agraria could be equally well managed by an essentially political Ministry of Agriculture.⁶

Political considerations were not the only reason, however. An important goal for the RF in all of the countries where it had cooperative programs was institutional development. It hoped to establish or strengthen agricultural research entities and governmental agencies, helping them acquire the capacity to function effectively once the RF had withdrawn from the collaboration.⁷ Toward this goal, one of the RF's policies in Colombia was, as much as possible, to publicly attribute the advances in

suggest, for example, that Roberts, the director of CAP, had personal ties with prominent members of the Conservative party.

⁶ RAC, RF, 1.2, 311, Box 2, Folder 11, Kenneth Wernimont's Diary of his March 1956 trip to Colombia. This dispersal of responsibilities among a variety of public and semi-private entities was a general characteristic of the Colombian government at the time, and not solely a feature of the Ministry of Agriculture. Ocampo and Tovar note, for example, that while there were only 35 autonomous state entities created in the five decades between 1886 and 1939, 18 were created in the 1940s, 32 in the 1950s and 43 in the 1960s. See Ocampo and Tovar, "Colombia in the Classical Era." Also, the notion that the Caja Agraria was not a politicized organization will certainly strike the observer of Colombian history as odd. While, as a semi-private organization, it was less subject to the annual transfers of power and reshuffling of posts that the Ministry experienced, it most certainly had political alignments that affected the way credit was dispersed and its monies were managed.

⁷ For a positive assessment of the RF's goal of institutional capacity building in other contexts, see Arthur A. Goldsmith, "The Rockefeller Foundation Indian Agricultural Program: Why It Worked," in *Philanthropy and Cultural Context: Western Philanthropy in South, East, and Southeast Asia in the Twentieth Century*, eds. Soma Hewa and Phil Hove (Lanham, MD: University Press of America, Inc., 1997): 85-114. For a more critical examination, see Jennings, *Foundations of International Agricultural Research*.

agricultural research to the Ministry of Agriculture, Faculties of Agronomy at the National University, or the Colombian researchers at the various experimental stations, such as Tibaitatá. For example, in November 1954, a writer who claimed to be under contract from *National Geographic* to produce an article about the Cauca Valley, contacted Roberts to inquire about the RF program at Palmira, the hot-climate experiment station near Cali. Roberts consulted with Jacob George Harrar about whether to provide him any information. Aside from doubts Harrar expressed about the veracity of the writer's claim that he was "under contract" (Harrar suggested that the writer did not have such a contract and was perhaps only planning to use a profile of the Rockefeller Foundation as a "hook" to sell his story idea to the magazine), he indicated that the request once again raised...

...the question as to whether we should authorize the publication of credits to the Foundation for work being done in collaboration with a local government. It would be much better to avoid this situation and, if unavoidable, make sure that it is put in the proper setting and the very important role of the Government of Colombia is clearly established.⁸

Consistent attribution of credit to the relevant Colombian agencies was one of the Foundation's methods for strengthening the agricultural research institutions it was supporting. Thus, it believed that a label listing the Foundation and the Ministry as joint sellers of improved seeds undermined their overarching objective in Colombia. This issue had, in fact, been raised before and partly explains the brusqueness of Wernimont's diary entry – he was likely under the impression that it had been dealt with the previous year following a visit to the CAP by J.N. Efferson, the Director of the

⁸ RAC, RF, 1.2, 311, Box 2, Folder 9, Letter from JGH to LMR dated December 2, 1954.

Louisiana State University and Agricultural and Mechanical College. Efferson had gone to Colombia in the summer of 1955 to attend the Third Latin American Meeting of Phytogeneticists, Phytopathologists, Entomologists, and Edaphologists, partially sponsored by the Rockefeller Foundation. While there, he toured the various programs and facilities of the CAP. As the director of an agricultural college, experienced at administering a research and training facility, his opinion of the CAP would have been quite valuable to the RF, and Jacob George Harrar asked him to review the program and give an assessment. For the most part, he had only positive things to say about the CAP. He praised the dedication of the staff, the enthusiasm of the affiliated Colombian agronomists, and the quality of research being done there. Only two problematic issues were worthy of note. One of them regarded internal administration and paperwork. The other was the use of seed bags labeled with both the Ministry of Agriculture and the Rockefeller Foundation. Efferson objected to these bags for two reasons.

The first was the previously-mentioned concern with attributing research achievements to Colombian agricultural entities. Efferson added a slightly different twist, however. While the inherently paternalistic aspects of the Foundation's entire program of building institutions in Latin America are undeniable, the RF employees rarely made direct statements (in their correspondence, at least) that displayed blatantly paternalistic attitudes toward the Colombians with whom they worked. Efferson, however, was not an RF employee. Compare Harrar's relatively neutral mention of the Colombian's government's "very important role" with Efferson's statements about why the Foundation's name should not appear on the bags:

As I understand it, it is not popular approval of the masses that is needed in the Foundation programs in Latin America but to help the responsible people to help themselves. In this, we need the support of the thinking minority and the more credit we let them take for themselves, the more effective this support will be.⁹

The paternalistic tone of “letting them take credit” is striking. It suggests that Colombians had no ideas of their own or that they would be unable to implement them if they did. To some degree, it paints them as children, in need of the guidance and encouragement from their adult supervisors. And again, this statement is so striking partly because of the almost complete absence of similar ones in the Rockefeller Foundation’s records. While they certainly recognized that Colombia needed technical assistance and monetary contributions to achieve its agricultural goals, they never spoke disparagingly of their Colombian colleagues.¹⁰

Paternalistic attribution of credit was one of the two reasons that Efferson objected to the use of seed bags displaying the Foundation’s name. Bad publicity was the other. Efferson noted that “it has been my observation that in many countries of

⁹ RAC, RF, 1.2, 311, Box 2, Folder 10, Letter from J.N. Efferson to JGH, dated 10/17/55.

¹⁰ From the start the Foundation seemed to regard agricultural research in Colombia with great respect. In 1948, for example, when Richard Bradfield and Paul C. Mangelsdorf conducted a review of Colombia’s agricultural institutions, to help the Foundation decide whether or not to establish a program there, they commented several times on the fact that “agricultural research in Colombia has already advanced beyond that in the majority of Latin American countries,” and favorably compared the situation in Colombia to that in Mexico (both Bradfield and Mangelsdorf had consulted for the RF in Mexico and were familiar with its conditions). This respect for what Colombians had already accomplished probably kept paternalistic undertones in check. Instead, they said things such as: “Because, as we have already mentioned, Colombia has made progress in developing agricultural organizations, it would be much better in our opinion if there were no clear-cut organization of American personnel with permanent headquarters [as there was in Mexico]. Each American specialist sent to Colombia should make his headquarters, we believe, at the institution where he can best function. He should identify himself closely with one or more of the Colombian institutions and should integrate his work with the work of Colombians in the same field. His success should be measured not by his own research accomplishments but by the extent to which he ‘activates’ Colombian specialists into doing effective research.” RAC, RF, 1.2, 311, Box 1, Folder 2, Report on trip to Colombia and other South and Central American countries, June 10-July 8, 1948 by Richard Bradfield and Paul C. Mangelsdorf. The only remotely “paternalistic” instances apparent in the foundation’s archival records about the CAP occurred very early in the program, and were related to social norms rather than scientific knowledge or ability. They centered on issues of arrival times at meetings and party etiquette.

Latin America, farmers tend to blame crop failures on seed sources more than on any other one factor and in some cases have made these claims stand up from the viewpoint of the general public.”¹¹ He acknowledged that he did not fully understand the Foundation’s need for publicity in Colombia, but suggested that it could work out poorly for the Foundation if there was ever a bad harvest.¹² Of course, the RF really had no interest in publicizing its work in Colombia, and preferred to avoid bad press; thus, taking its name off the bags used for improved wheat seeds was important to Wernimont and merited a discussion with Lewis Roberts. In some ways, considering the publicity problems Menkemen and Bonza faced both at the time, due to misinformation by the millers, and in the coming years, as Menkemen’s lack of resistance to *Roya Puccinia* wiped out harvests, for the RF this was an informed and insightful policy.

Seeing the “improperly” labeled bags during the morning visit to the Caja Agraria’s seed handling plant was the first thing that displeased Wernimont that day in March. The second occurred that evening. Back at the Tequendama Hotel where he was staying, he made the acquaintance of two other North American guests – Gordon Boals,

¹¹ RAC, RF, 1.2, 311, Box 2, Folder 10, Letter from J.N. Efferson to JGH, dated 10/17/55.

¹² Ibid. An even scarier scenario was sabotage. Efferson claimed that it would be very easy for an individual or group in Colombia to sabotage the Rockefeller program for “political or other reasons.” All they had to do was acquire or make their own supply of the bags, fill them with “poor seed” and distribute them throughout the countryside. Apparently he had seen such a scheme in action in 1948 when “...the North Koreans obtained a supply of ammonium nitrate bags stamped with the F.A.O.-U.S.D.A. label, filled them with caustic soda mixtures, slipped them back into the distribution system, killed out several thousand acres of rice, and then started the propaganda that the F.A.O.-U.S.D.A fertilizer was being supplied to South Korea to make them helpless by destroying their crops.” Presciently, four years later, the Colombian Ministry of Justice investigated an alleged crime in which bags used by the Caja Agraria to sell fertilizer were stolen and filled with “adulterated fertilizer.” Over 40,000 tons of this fertilizer were sold in Cundinamarca and Boyacá and drastically affected the potato harvest that year. See, RAC, RF, 12.3, Diaries, “Perjuicios en Cundinamarca y en Boyacá por adulteración de abonos: Los agricultores solicitan severa investigación,” *El Siglo*, July 22, 1959.

who worked for the USDA's Foreign Agriculture Service (FAS), and Gordon L. Munson, who was the U.S. Agricultural Attaché in Ecuador. Boals would later become an ally of the Asociación Nacional de Panaderos (ADEPAN) – who would use some of his articles about the inefficacy of milling operations in wheat importing countries in their battles with Colombian millers over whether the country should import grain or flour. Wernimont, Boals, and Munson had an animated conversation that evening. At one point, Boals characterized the Foundation's program as "pushing production of surplus crops." For Boals, this suggested that the RF operated on shaky economic premises in Colombia – after all, why would the government bother to devote so many resources to developing production of a crop that it could just as easily buy from the United States, and on good terms through the PL480 program, unless it was encouraged to do so by an organization of such solid repute as the Rockefeller Foundation? This subtle accusation of economic illogic was made more plainly evident when he wondered why the foundation didn't support research on "consumption." In response, Wernimont refused to cede the point that such studies might be a good idea; instead he dismissed Boals' criticism by indicating that the foundation "was always glad to listen to concrete suggestions," but didn't really have "much competence in the field of consumer research." He also countered the inherent criticism of the RF's program on economic grounds, arguing that "a predominantly agricultural country such as Colombia could hardly be prosperous while importing basic food stuffs." This was especially important, Wernimont argued, considering that its population was increasing

exponentially and its urban areas experiencing rapid expansion, both of which demanded that Colombia “use her limited agricultural lands efficiently.”¹³

Boals apparently did not counter that argument and even seemed to accept Wernimont’s point of view, suggesting that lower wheat prices overall would help to increase bread consumption in Colombia, and that such price reductions “might happen sooner if farmers could reduce their costs as a result of the findings of the RF scientists.” In the end, however, Wernimont made clear that such criticisms of the Rockefeller Foundation ultimately missed the point. As he explained, the RF was in Colombia to develop research institutions and train agricultural scientists. They were not there to achieve specific agricultural outcomes. Doing research on specific crops was simply a way of achieving their objective. As Wernimont noted: “A successful program of applied research is not solely an end in itself, but an essential tool for providing training.”¹⁴

Although technically true, Wernimont’s final words are slightly disingenuous. Training agricultural scientists was indeed the main objective of the Rockefeller Foundation’s Agricultural Program. But, like the “program of applied research” to which Wernimont refers, it was not the end in itself, but a step toward that end. The Foundation’s ultimate goal for its Agricultural Program was the elimination of hunger and to achieve that goal they focused on the world’s staple crops – initially corn, wheat, and beans, and later adding potatoes and rice. In Colombia the RF received continuous requests for assistance in developing agricultural research programs for a variety of

¹³ RAC, RF, 1.2, 311, Box 2, Folder 3, Kenneth Wernimont’s diary of his 1956 trip to Colombia.

¹⁴ Ibid.

other crops, some of them for domestic consumption and others for export or industrial use. Roberts, in fact, wrote to Harrar in May 1956 requesting that an “Assistant Director” be hired, as he spent so much time responding to invitations from the Ministry of Agriculture to attend meetings about the development of various crops that he was finding it difficult to fulfill his responsibilities. He always attended the meetings, as he felt that doing so helped to keep Rockefeller-Ministry relations running smoothly, but he never committed the Foundation to greater participation than his presence at the various meetings.¹⁵ Indeed, aside from the Bavaria consortium on barley, some technical assistance to sugar cane growers in the Cauca Valley, and the addition of pasture grasses to the research program in 1953, the Foundation consistently rejected requests to add more research areas to its Colombian program. While their refusals, on one hand, indicate an attempt to avoid the problems associated with “mission creep,” they also belie Wernimont’s assertions about the Foundation’s objectives in Colombia.¹⁶

Keeping the CAP focused on its core mission required constant vigilance. Although it seems logical that agricultural extension would be an integral part of any “successful program of applied research,” the Rockefeller Foundation saw that as a completely distinct area of activity. While plant breeders and extension agents clearly have very different skills and knowledge, they are dependent on each other for the successful completion of their area of activities. Certainly, Colombians saw it that way,

¹⁵ RAC, RF, 1.2, 311, Box 2, Folder 11, Letter from LMR to JGH, dated May 18, 1956. Wernimont himself rejected a request made to him on the last day of his March 1956 visit, when Alfonso Cuadros Piar, a representative for the Pacific Vegetable Oil Company, stopped by the Tequendama Hotel to ask the RF to support a project developing edible oils in Colombia. See, RAC, RF, 1.2, 311, Box 2, Folder 3, Kenneth Wernimont’s diary of his 1956 trip to Colombia, 50.

¹⁶ On the Rockefeller Foundation’s goal of combating global hunger, see Stakman, Bradfield, and Mangelsdorf, *Campaigns Against Hunger*.

and had first asked the RF for assistance setting up a comprehensive research, training, and extension agency in 1953.¹⁷ The RF declined to get involved, but various Ministers and faculty deans kept asking over the next decade, until the RF finally agreed that it was a good idea and pledged its support.

Another example occurred during Wernimont's visit – the same one that started off on the wrong foot with the mislabeled bags and the unpleasant conversation with Boals and Munson at the Tequendama Hotel. For the next ten days, Wernimont toured the various installations of the CAP in and around Bogotá, Cali and Medellín. At the same time, he met with a variety of people, including the Minister of Agriculture, the Deans of the Faculties of Agronomy and all the staff of the Rockefeller Foundation. A number of individuals also came to see him at the hotel. One of them was Orlando Fals Borda. Only recently having completed his Ph.D. in rural sociology from the University of Florida, Fals was still a young man trying to make a career for himself and was not yet the widely known and respected figure that he eventually became.¹⁸ Hoping to revisit the area near Choconta where he completed the fieldwork in 1950 that became the basis of his dissertation and first book, Fals approached Wernimont in the hopes that the foundation would be interested in funding a follow-up project in the area, as

¹⁷ RAC, RF, 1.2, 311, Box 2, Folder 8, Letter from Warren Weaver to General Chary dated August 24, 1953.

¹⁸ Fals was one of the founders of the National University's Faculty of Sociology in the early 1960s. In 1962, he and two collaborators published a two-volume examination of the causes of the recent violence in Colombia. These volumes moved discussion of *la Violencia's* origins away from political partisanship and toward the social conditions in the countryside. His most important works on rural sociology, communication, participatory development, and radical social change are foundational texts for Colombian students of sociology and agricultural extension. See Fals Borda, German Guzmán, & Eduardo Umaña Luna, *La Violencia en Colombia, estudio de un proceso social* (Bogotá: UNAL, 1962); Fals, *Acción comunal en una vereda colombiana: su aplicación, sus resultados y su interpretación* (Bogotá: UNAL, Departamento de Sociología, 1961); *El hombre y la tierra en Boyacá: Bases sociológicas e históricas para una reforma agraria* (Bogotá: Ediciones Documentos Colombianos, 1957); *Subversion and Social Change in Colombia* (New York: Columbia University Press, 1969).

well as tests of some new extension methods. Wernimont explained that the Rockefeller Foundation did not support individual research projects. Fals did not apparently walk away empty-handed, however. As he was affiliated with two different research entities in Colombia at the time, he could submit an application with the sponsorship of one of them and suggested to Wernimont that he would do so at some point in the near future.¹⁹

Fals Borda's name came up again three days later, when Roberts and Wernimont paid a visit to the U.S. Ambassador to Colombia, Philip Bonsall, and the Agricultural Attaché, Earl Loveridge. After roundly praising the RF's work in Colombia, Bonsall spoke highly of the rural education program being conducted by Monseñor Salcedo and encouraged Wernimont to inspect it. This was the Radio Sutatenza project, an education program providing technical information for farmers over the airwaves. Wernimont promised to do so if there was time. Bonsall then mentioned Orlando Fals Borda and his work, noting that he was a young man who "...would be worth watching as he gains experience in research in the field of rural sociology."²⁰

Wernimont never found the time to visit the Sutatenza project, and the Rockefeller Foundation never funded any of Fals Borda's extension work or sociological research in the Colombian countryside. But, these examples illustrate the way that the Rockefeller Foundation was perceived at that time among Colombian agronomists,

¹⁹ RAC, RF, 1.2, 311, Box 2, Folder 11, Kenneth Wernimont's diary of his 1956 trip to Colombia, 41.

²⁰ Ibid., 45. On Radio Sutatenza, see Stephan F. Brumberg, "Colombia: A Multimedia Rural Education Program," in *Education for Rural Development: Case Studies for Planners*, eds. Ahmed Manzoor & Philip H. Coombs (New York: Praeger Publishers, 1975).

extension agents, and officials at the Ministry of Agriculture: it was a respected organization with whom they hoped to deepen their collaboration. Obviously, the Foundation's deep pockets made it very attractive, but the respectful way that it treated its Colombian collaborators and the way that it followed their lead in terms of agricultural goals and policies surely heightened not only the esteem with which it was held, but also the perception that it could play an important role in helping to the nation from predatory policies by certain U.S. actors attempting to discredit and disrupt national goals of agricultural self-sufficiency. A few years later, these competing visions would begin to clash more publicly.

Neither Bread Nor Cookies

In February 1960, Roy Roy K. Durhan and Edward F. Seeborg released a damning report about Colombian wheat production. Durhan was an advisor to both the Great Plains Wheat Development Association and the National Miller's Association of America. Seeborg was a representative of the U.S. Department of Agriculture. Colombia's millers could not have made a better case for increasing imports. They began by stating that the gap between the amount of grain necessary for Colombia's needs and the amount available was growing every year and suggested that only increased imports could alleviate such a shortage. According to Durhan and Seeborg, domestic production could not fill this gap because, as they explained it, "Colombian wheat is of relatively poor quality. Its protein content is approximately 11%, and therefore, the flour it produces contains too little protein to make good bread and too

much to make good cookies.”²¹ Attempting to demonstrate objectivity and fairness, they stated that Colombia’s millers were “anxious” to buy local wheat since their mills were largely lying idle. They acknowledged the work of Colombian agronomists valiantly attempting to develop varieties adapted to the country’s growing conditions, but expressed great pessimism that they would be able to overcome the diseases to which wheat was so susceptible, or the climatic factor, implying that wheat was naturally a temperate, rather than a tropical crop. Revealing the true target of their comments, however, they also indicated that Colombia’s mills were inactive not only because of low levels of national production, but because the severe import restrictions then in place prevented them from purchasing the grain necessary to feed Colombia. In other words, the same restrictions that were put in place half a year earlier, when wheat farmers couldn’t sell their harvests because the mills were filled with imports were now being blamed for the shortage facing the country.

Dr. Enrique de Rojas Pena, on behalf of the Colombian Association of Agronomic Engineers quickly responded to these charges with a several page rebuttal that was published in at least three different newspapers (under three different titles).²² The main argument of Dr. Rojas’ response was based on the assertion that the percentage of protein content in wheat depended on the region in which it was grown. With that as a starting point, he discussed the protein content of the same wheat variety grown in different areas of Wisconsin, Minnesota and North Dakota, which was shown to vary

²¹ RAC, RF, 12.3, Diaries, “Criterios antagónicos desconcertantes rigen la política triguera en el país, hoy,” *El Colombiano*, March 25, 1960.

²² Ibid.; RAC, RF, 12.3, Diaries, “450 Millones en Importación de Trigo Afecta a la Economía Nacional,” *El Espectador*, February 28, 1960; “En Colombia Puede Producirse Trigo Fino y de Bajos Costos,” *La República*, February 28, 1960.

from between 10.8 to 13.5 percent. In contrast, a similar list highlighting Menkemen and Bonza grown in 20 different localities in Cundinamarca, Boyacá, and Nariño demonstrated the same variability, but at higher levels of protein content – between 11.7 and 18.3 percent. Wheat was abundantly cultivated in Colombia's tropical regions throughout the colonial era, another article explained, but had died out in the nineteenth century, attacked by a microscopic fungus for which it had no defenses. By 1959, however, Colombian agronomists had "completely eradicated this wheat fungus."²³ Moreover, combating Durhan and Seeborg's implicit assumption that wheat could only be successfully grown in cooler climates, the author felt compelled to add that "wheat's origins were in warm climates, as it was originally cultivated in Asia, Ethiopia and North Africa," thus rendering Colombia an excellent location for wheat cultivation.

Charges that Colombia could not produce wheat in its lower elevations seemed particularly offensive to the Rice Growers Federation. As a show of support to the Colombian Association of Agronomic Engineers, the Rice Growers Federation issued a statement, published in *La República*. The Federation began with a shot across the bow, claiming that the erroneous information contained in Durhan and Seeborg's article was provided to them by the U.S. Embassy in Colombia. After declaring that they were "completely opposed" to their assessment of Colombia's wheat growing capacity, the Federation discussed how well wheat adapted itself to the country's rice-growing regions, claiming that it was an excellent crop to add to the rotation process. As

²³ RAC, RF, 12.3, Diaries, "Superior producción del trigo de climas cálidos," *La República*, March 27, 1960.

support for their argument that wheat could be grown in Colombia's warmer regions, the Federation called upon the expertise of none other than José Francisco de Caldas, one of the country's national heroes from the independence era:

The wise Caldas, in his admirable study of the plants that were cultivated in vicinity of Ecuador, published in 1803, indicated that the warm climates of New Granada, particularly Cartagena, Popayán, Patía, Cali, and Santa Fe de Antioquia had been intensely cultivated with wheat during the colonial period.

Caldas wrote that wheat was decimated during that era by an unknown disease.

According to the Federation, that disease had now been identified and new, resistant strains had been developed. Thus, the Rice Growers claimed that "this fearful disease...is completely eradicated." Moreover, they asserted, wheat was a crop native to warm climates, being that it was first cultivated in Asia, Ethiopia, and North Africa. The statement then provided several paragraphs of specific results of recent research that had been conducted on wheat in warm zones, and finally concluded with a parting shot: "In addition, the cultivation of wheat in warm climates enjoys the advantage of easily being able to produce two harvests each year, an exceptional condition, and one which places the wheat-growing regions of the temperate zone in an inferior position."²⁴

While it may seem odd that the Rice Growers would come so vociferously to the defense of the wheat growers, in reality, they were in similar situations – attempting to increase the production of what was, at that time, not considered a "traditional" crop in Colombia, and one which competed for land with extensive banana plantations and

²⁴ Ibid.

cattle ranches. Being that the Ministry of Agriculture was attempting to promote such “non-traditional” crops as wheat and rice, among others, it served their interest to show support and solidarity for the wheat growers.

Ultimately, the combination of what appeared to be a public furor over the encouragement of barley over wheat and the attacks by North Americans on Colombian wheat varieties led the Ministry of Agriculture to propose the creation of an “Institute of Cereals.” Although a Federation supporting both wheat and barley was eventually established, it was poorly funded and ultimately achieved very little.²⁵ On the other hand, shortly afterward, the Ministry established an organization designed to oversee and combine the three main functions of agricultural research institutions – research, training and extension. The Rockefeller Foundation played an important role in the creation of the Instituto Colombiano Agropecuario (ICA). Over the next few years, officials and colleagues at the Ministry of Agriculture, the Caja Agraria, and ICA relied heavily on the Rockefeller Foundation to help defend their attempts to grow more wheat from attacks by the USDA, and other U.S.-based wheat interests.

How Not to Win Friends

At heart, the goals of the Rockefeller Foundation and the Colombian Ministry of Agriculture (and the agronomists and agriculturalists throughout the country who worked for or supported the CAP) were quite divergent. The RF hoped to eradicate world hunger through the application of advanced biology and chemistry to

²⁵ As a previous chapter indicated, these two crops were actually in severe competition at the time, so it is surprising that the Ministry of Agriculture thought a joint effort would achieve anything useful.

agricultural production.²⁶ The Ministry of Agriculture wanted to reduce grain imports, substituting them with domestically grown ones. That eradicating world hunger was ultimately only a secondary goal for the Colombians who supported the CAP is evidenced by statements made by Camilo Cabal, the Minister of Agriculture in 1953, just a few months before the military coup overthrew the conservative government of Laureano Gomez. In a March 1953 meeting between Cabal and Jacob George Harrar, then director of the RF's agricultural programs worldwide, the Minister indicated his pleasure with the results of the CAP up to that point and emphasized that with the RF's help Colombia could easily produce the 40,000 tons of wheat that it was currently importing in order to achieve the 160,000 tons needed each year to meet the nutritional needs of the Colombian people. As Cabal suggested, by producing those 40,000 tons themselves, Colombia could save the four to five million dollars that it then spent on an annual basis to purchase imported wheat.²⁷

Clearly this has nothing to do with eradicating world hunger. Their contradictory goals did not ever seem to pose a problem for the Rockefeller Foundation, however, and it's easy to understand why: Colombia's desire to reduce reliance on imported grain did not contradict the RF's desire to eradicate world hunger. By helping the Colombians achieve their goal of import substitution, the RF ultimately worked toward achieving its own goal in the long run as well.

²⁶ Stakman, Bradfield, and Mangelsdorf, *Campaigns Against Hunger*.

²⁷ RAC, RG 1.2, S 311, Box 2, Folder 8, Jacob George Harrar's (JGH) diary dated March 19, 1953, regarding his trip to Colombia.

Somehow, though, import substitution and national self-sufficiency seemed to become goals in and of themselves for the RF officers stationed in Colombia. They rarely spoke of the impact that the CAP would have on the Foundation's overall goal and frequently spoke instead of the way that their program was helping Colombia achieve self-sufficiency in grain production. Often they sounded more Colombian in this regard than the Colombians themselves. One could obviously expect that the Foundation's officers in Colombia would take such a stance when addressing the Colombian public or in meetings with governmental representatives or producers associations or heads of agronomy departments. But private correspondence and diary notes shared only within the Foundation itself are replete with such references as well. And more importantly, they often took this stance when directing comments toward various US audiences as well, including the very same Embassy, USDA and producers associations that were helping to advance a negative publicity campaign regarding Colombian wheat.

It is in this sense that the Rockefeller Foundation became a "collaborator" of the Colombian Ministry of Agriculture. To return to the central theme of this chapter: in many accounts of the Rockefeller Foundation in Latin America, the various individuals in Latin America connected with one of the Foundation's programs are often portrayed as the Foundation's "collaborators," – individuals who worked with the Foundation to help it achieve its goals. What is overlooked in this formulation is the way that the Foundation became a "collaborator" of sorts for Latin Americans attempting to achieve their own goals that were independent of the Foundation's.

This certainly seems to be the case with the CAP. As the following pages will show, in the Ministry of Agriculture's battle with the millers for control over the domestic wheat market, the RF became an important ally, with a great deal of firepower to direct toward the millers' own collaborators – the U.S. Embassy, USDA and U.S. wheat producers associations. That firepower was often directed with great results in the court of public opinion in Colombia in general. That this was the case will be demonstrated in the following pages by first briefly examining the relationship between the RF and other representatives of the US in Colombia, as well as the RF and the Colombians with which it worked. Then, several examples of the Foundation's defense of Colombia's wheat-growing capabilities will be explored. Finally, some examples of the use of the Rockefeller Foundation within Colombia will be discussed.

It is not clear that Colombian agronomists knew that the Rockefeller Foundation officers held other U.S. actors in such low regard. Surely, they would have taken great delight in such knowledge, if they had it. The RF repeatedly criticized STACA, for example, on a number of points regarding its personnel, including their insufficient numbers, their lack of training, and their minimal experience in Colombia. An excerpt from the diary of Ulysses J. Grant regarding a meeting between he, Guy Baird, another RF agronomist in Colombia, and representatives of STACA subtly demonstrates this. According to Grant, the meeting was designed to develop ideas for greater collaboration between the RF-sponsored agronomists and the STACA extension agents. Several of the agents in attendance at the meeting, which also included the U.S.

Embassy's new chief agricultural officer, Mr. Lyall Peterson, were new to the country, and so the STACA director asked Grant to begin the meeting by first explaining what the Rockefeller Foundation was doing in Colombia. Grant and Baird did so and then launched into a discussion of ways to ensure greater collaboration between research and extension. Grant's comments, however, make it clear that he believed that he and Baird were just wasting their time at the meeting:

We discussed various ways and means of getting more coordination between research and extension. We mentioned a number of projects which would lend themselves to a good extension program. One of them would be in the production of virus free potatoes. Another would be in setting up a rotation of wheat and potatoes and pastures. This experiment is especially promising for a large farmer. A number of others could be done on management of livestock, etc., but it is fairly well apparent that STACA will not be able to do too much of this type of work by project because they do not have enough people to go at extension on a project basis. It was pointed out that the real answer to this problem was to have extension people work with the research sections so that they could learn first hand what is going on, and then they would be in a much better position to do some extension work.²⁸

Grant's criticisms tended to be diplomatic and subtle. In this excerpt, he was both, but also clearly expressed his ongoing frustration, which, on close inspection, can read like a laundry list: 1) the existence of yet another new agricultural officer with no knowledge of the RF program or its activities in Colombia; 2) lack of knowledge on the part of STACA program staff regarding Colombia's agricultural needs or situation; 3) insufficient staff to effectively conduct any extension programs at all; and 4) lack of training or knowledge on the part of the staff regarding the connection between research and extension. One can imagine how exasperated he must have felt, when he

²⁸ RAC, RAF, RG 12.3, S Diaries, Box 21: Diary notes of Ulysses J. Grant from August 31, 1959.

eventually was forced to politely suggest that the STACA team get up to speed on the basics of Colombian agricultural production and research before they work on any collaborative programs. Grant's diary is quite extensive and provides a variety of other examples similar to this, with criticisms of staff ranging from STACA extension agents, as the above example illustrates, all the way up to the U.S. Agricultural Attaché himself.²⁹ The undertone of frustration is palpable in all of them, although few reached the extreme bluntness of his criticism of a representative of the UN: "Appointment again with Mr. Boothby, the sheep specialist from the FAO. This gentleman is completely lost."³⁰

For the Ministry of Agriculture, the fact that the RF had similar problems working with the foreign missions and representatives of the U.S. Embassy created a natural alliance between them. It probably helped to cement the RF's interest in helping the Colombians achieve their goals. And it certainly may have contributed to its continual insistence that wheat was perfectly adapted to Colombia's growing conditions and that the grain produced there was perfectly suitable for use in all types of milling and baking processes.

Recall the defense of wheat grown in tropical areas that the Rice Growers Federation had issued in response to the attack on Colombian wheat by Roy Durhan and Edward Seeborg in March 1960. That same month, Grant had a meeting with Dr. Canuto Cardona, Dr. Eduardo Chavarriaga and Gustavo Restrepo from the Caja Agaria.

²⁹ RAC, RF 12.3, Diaries, Box 21, Diary notes from UJG on 7/15/1959; 2/5/60; 2/18/60; 3/7/60.

³⁰ RAC, RF 12.3, Diaries, Box 21, UJG diary notes from 11/26/1960.

The meeting was ostensibly about the various seed campaigns going on at the time, but at one point, the discussion turned toward the “possibility of growing wheat at low elevations,” the very same proposal put forward by the Rice Growers Federation. The Caja Agraria had developed a research program for “tropical wheat” but was unable to carry it out due to a lack of personnel. In what was clearly an attempt to get the RF on board, Restrepo assured Grant that they would be able to “obtain all the financial support necessary,” presumably from the Ministry of Agriculture, while Cardona believed that they would be able to find enough agronomists to carry out the program. Grant’s assessment of this project was that, “this is not as simple as it sounds because of the disease and insect problem but I think that some research should be done on this problem.” While this may sound like an evasive response, characteristic of Grant’s diplomacy and subtlety, the fact that he did not dismiss it out of hand, as he did many other projects proposed to him and the RF is suggestive of his potential willingness to consider it. Moreover, a related observation at the close of his diary entry that day supports this contention, and hints at the direction the RF was beginning to take in regards to imported wheat vs. domestic production in Colombia:

There is a tremendous amount of propaganda in the newspapers at the present time concerning the importation of wheat from the United States. There is a strong feeling that the importation of wheat from the States is going to damage the price structure of wheat produced in this country. This may be right.”³¹

Several years later, the RF’s transformation to full-blown supporters of domestic wheat over imported was in full view in its response to an article published by Robert

³¹ RAC, RF 12.3, Diaries, Box 21, UJG diary notes from 3/25/1960.

Adcock, the US Agricultural Attaché in Colombia. Adcock's article was published in the USDA sponsored journal, *Foreign Agriculture*, and claimed that wheat was not "adapted" to the tropics and criticized the country's leaders for attempting to achieve self-sufficiency in the grain, as well as the Rockefeller Foundation for wasting its time, money, and efforts trying to help them. To an uninformed reader, Adcock appeared well-informed about wheat production and experimentation in Colombia. He wrote of researcher's plans to extend their experiments for wheat varieties adapted for the "vast tropical plains where the average temperature is 78° F. and the rainy season lasts six months," as well as a significant portion of the funding for this research, which came from a "tax" on imported wheat – for every ton of imported wheat purchased by Colombian millers, the equivalent of \$6.50 was contributed to a special fund dedicated to supporting research on wheat expansion throughout the country, utilizing new varieties.

Adcock acknowledged that great gains had been made – experimentally. Research stations had developed high quality strains of wheat capable of producing 90 bushels per acre, and those research gains ignited the hopes for "consistent and dependable results," and encouraged research to continue. But that rosy picture was only applied to research. Far from the experimental fields, millers were paying "as high as \$5.50 a bushel for local wheat, most of which would be called 'sample grade' in the United States and would go into livestock feed rather than flour." As if that wasn't bad enough, Adcock attributed advanced soil erosion throughout Colombia to the attempt to cultivate wheat in places where it wasn't "adapted," and claimed that only "in the

limited, relatively level land of the Savannah [was] erosion no problem, but here wheat competes sharply with malting barley, dairying, vegetables, as well as with industrial and recreational uses."³²

After the article's appearance in *Foreign Agriculture*, a flurry of letters flew back and forth between Ulysses J. Grant, Lewis M. Roberts, then director of the RF's agricultural programs in New York City, and Charles F. Krull, another RF wheat breeder. In them, they picked apart the scientific basis of his arguments, his logic, and his motivations. They also debated how to respond. In their assessment of his motivations, the deep division between these two different groups of North Americans – representatives of the Rockefeller Foundation on the one hand and representatives of various branches of the U.S. government on the other – is readily apparent, and suggests the ease with which various representatives of Colombian agriculture could enlist the RF in their struggle to fend off the "dumping" of surplus grain from the United States. As Krull saw it:

Bob [Adcock] feels that his principal job as Agricultural Attaché in Bogotá is to sell U.S. surplus products, particularly wheat. Therefore, he considers it his duty to discourage local production in any way that he can, and he has been quite critical of the Foundation on numerous occasions."³³

Roberts, who had worked in both the RF's Mexican and Colombian Agricultural Programs, assisted in a smaller Chilean program, and had had numerous exchanges with agronomists and government leaders throughout Latin America – and was thus in a position to speak authoritatively, echoed Krull's assessment:

³² Robert E. Adcock, "Colombian Wheat Needs Outstrip Country's Capacity to Produce," *FA* (August 9, 1965): 8-9.

³³ RAC, RF 1.2, 311, Box 4, Folder 23, Letter from Charles Krull to Lewis Roberts, dated 9/17/65. All subsequent references to this letter will be cited as "Krull to Roberts."

Your comments on Bob Adcock's article are very interesting and to the point. Bob is no exception among the many agricultural attachés, whom I have known throughout Latin America over the years, in feeling that one of his main responsibilities is to sell U.S. surplus agricultural products. He is entitled, of course, to his own viewpoint which clearly reflects the policy line handed down from Washington. What I do object to, as you do, are his misstatements of fact, half-truths, and many insinuations that are poorly based.³⁴

What were these misstatements and half-truths? Of all the letters, Krull's was the most thorough and relentless in picking them apart. A key argument in Adcock's article centered on the concept of a "tropical crop of recognized adaptability." He did not include wheat in this category. Krull analyzed this concept at length, questioning what exactly Adcock meant by the term. He pointed out that Adcock had excluded wheat but included barley, despite the fact that "wheat [had] higher yields per hectare in Colombia and it is only because of an aggressive extension program and a guaranteed, well-regulated market that barley can compete."³⁵ He marveled at the fact that, in Adcock's conception, corn did not appear to be a crop suited to the tropics – an absurd idea, Krull indicated, considering that it had originated in the "tropical Americas." Examining the list of adapted and unadapted crops, Krull could only conclude that "the definition of 'not adapted' crops seem to be influenced as to whether the U.S. has large surpluses of the crop or not."³⁶

A short list of the misstatements and half-truths Krull identified in Adcock's article is quite long: most farmers using CAP seeds were producing 30 tons per acre, not

³⁴ RAC, RF 1.2, 311, Box 4, Folder 23, Letter from Lewis Roberts to Charles Krull dated October 14, 1965. All subsequent references to this letter will be cited as "Roberts to Krull."

³⁵ Krull to Roberts, *op. cit.*

³⁶ *Ibid.*

the 13 Adcock claimed; it was farmers who had produced 90 tons per hectare in the Sabana de Bogotá, not just the researchers at experiment stations; the money collected through the surcharge on imported wheat did go to a government fund, but none of it was ever made available to conduct research on wheat; very little of the domestic wheat purchased by millers was 'sample grade,' but because of Colombia's humid conditions and poor storage facilities, it did often arrive damaged; while soil erosion was a problem, in no stretch of the imagination did it equal the gravity of the problem in much of the wheat areas of the U.S., "particularly the 'dust bowl' of Mr. Adcock's native Oklahoma;" wheat did compete for land with other crops and industries on the Savannah, but that in itself did not make it unsuitable for tropical conditions.

While the thoroughness with which Krull and others criticized Adcock's assertions may seem excessive, they were also practically inevitable. He was, after all, both directly and indirectly criticizing the RF's work in Colombia, work to which it had dedicated almost twenty years by that point. Numerous individuals at the Foundation were deeply committed to the program's success, and apparently sloppy, and certainly damaging critiques such as Adcock's would have been taken very seriously and perhaps personally. Thus, it would have been surprising if the Foundation had not reacted in such a way. More significant than the criticisms of Adcock's main points was the discussion of a potential response and the Colombian reaction to the article.

Roberts, for example, wrote that

If I were a Colombian, especially a government official in agriculture, I wouldn't like to have a U.S. diplomatic representative try to tutor me in public print about how to manage the agricultural affairs and policies of

Colombia. If Bob has such viewpoints as he expressed in his article, I think he should try to get these across to the appropriate Colombian officials in face-to-face conversations with them. By putting these in print as he has done, he has provided a good example of how not to win friends.³⁷

Roberts' sensitivity to the Colombian point of view is in keeping with the tenor of RF relations with Colombians in general, but also hints at a different understanding of the relationship between Americans and Colombians than that expressed by Adcock. "Tutoring," after all, implies an unequal relationship, while "face-to-face conversations" suggests a relationship of equals, of peers and of colleagues. The respect with which the Rockefeller Foundation treated its Colombian colleagues was rewarded by the great esteem in which the Foundation was held in Colombian agricultural research circles.

That the RF was sympathetic to the Colombian point of view was expressed by Krull's suggestions for the appropriate response on the part of the RF and of the Colombians themselves. He did not believe that anyone at the Foundation should respond directly to Adcock, as they had already had several conversations with him about these issues in the past. Moreover, many of the same points had been made by the Minister of Agriculture at the Colombian National Wheat Congress in November, 1964, and Krull suggested that Adcock would have been familiar with this speech – and apparently had paid no attention. The tone of Krull's letter suggests that the RF had worn out its usefulness as a "collaborator" for the Ministry of Agriculture in its struggle to reduce wheat imports, as the RF's power to influence the representatives of the US embassy seemed quite limited. Only drastic action – taken on the part of the

³⁷ Roberts to Krull, *op. cit.*

Colombians – seemed likely to have any potential results, and Krull had a good suggestion:

I have known Colombians to become quite angry at the type of material presented in the *Foreign Agriculture* article. Perhaps some day someone of high enough rank will get concerned enough to close wheat importation out of spite and regulate the market situation to encourage wheat production. This would be one of the most valuable things that has been done for the agriculture of Colombia.³⁸

However, while in some respects the RF may have appeared to be a weak ally in the struggle against imported wheat, Roberts, having lived in Colombia for a decade, understood all too well the difficult position of the Colombians and the obstacles they faced in directly confronting the US. Reiterating Krull's assessment of Adcock's willful deafness, he lamented that the latter had not "...allowed himself to be properly oriented on the subject of his article" and asserted that Grant, Gibler and Krull had all attempted to "get the story across to him," without luck. Roberts was also certain that Grant would continue his efforts to educate Adcock. The most effective and persuasive words would come from representatives of the Ministry of Agriculture and the Caja Agraria, but Roberts succinctly expressed the difficulties for them in doing so:

There are some very good reasons why the Colombians can't make a great issue of this – one of which is the fact that ICA has a request pending with AID for support for a technical assistance program with the University of Nebraska. They cannot very well afford to let themselves get into an open squabble with AID and the U.S. Embassy at this particular time.³⁹

With this we can more fully understand the role of the RF in Colombia.

Although their power to influence Washington was limited, they played a crucial role

³⁸ Krull to Roberts, *op. cit.*

³⁹ Roberts to Krull, *op. cit.*

in arguing on behalf of the Colombians when doing so for themselves carried difficulties. More importantly, the RF expressed awareness of this role and seemed to embrace it, albeit with some reluctance.

Conclusion

At the conclusion of Roberts' letter to Krull regarding the Adcock debacle, Roberts wrote that "an increasing number of knowledgeable and responsible individuals here in the States are becoming greatly concerned about the U.S. food policy, especially as this relates to the disposal of surpluses abroad." He told Krull about a national seminar on the subject that had been held at Estes Park the summer before. The proceedings of the meeting had just been published and Roberts intended to circulate them widely within the RF. As he indicated,

I think you will find the results of this seminar quite interesting, and I hope it will have an influence on setting a new course for the U.S. to dispose of its agricultural surplus production. I do not believe that Adcock and the other agricultural attaches will change very much until they receive a new policy line handed down from above. It is high time that this change comes about.⁴⁰

A clearer statement that the RF was "on the side" of the Colombian agronomists could not be found. This in turn leads us to question the notion that entities such as the Rockefeller Foundation could truly be considered "agents of empire" on behalf of the U.S. Clearly, the United States was (and is) not a monolithic empire – a wide variety of opinions proliferate, even within the state itself. But the characterization of the

⁴⁰ Ibid.

Rockefeller Foundation as one part of a singular U.S. effort to spread Western science and dominate the agricultural production of developing nations cannot be sustained in light of the Foundation's collaborative efforts with Colombian wheat promoters.

CONCLUSION

In 1945, Dr. W.E. Dunn, the Counselor of Embassy for Economic Affairs at the U.S. Embassy in Colombia took a trip down the Magdalena River with his wife, Linda T. Dunn. The first part of their journey mirrored that of many other travelers from Colombia's highland interior to the Atlantic Coast: a trek across the Sabana de Bogotá to the slopes of the eastern *cordillera*, where they began their descent toward the Magdalena River. Unlike in previous decades and centuries, however, in which mules or human carriers were the most common modes of transportation, the Dunns traveled by train from Bogotá to Puerto Salgar, one of the main ports on the Magdalena River. This 125-mile trip afforded them the opportunity to pleasantly gaze out of their train car window at the surrounding countryside. Their observations on this part of their journey are worth noting:

Leaving Bogotá in the morning, the train runs westward across the *Sabana* of Bogotá, through broad level pastures of natural grasses and fields of corn and wheat. The air is clear and bracing at that altitude, and the landscape reminds one of some parts of the Middle West in the United States. Shortly beyond the town of Facatativá, the railroad leaves the *sabana* and starts its long descent of the slopes of the Eastern Cordillera. The air gradually becomes warmer, and pastures and wheatfields give way to steep mountain slopes covered with forests, coffee *fincas*, and then to patches of sugarcane, corn, and yuca.¹

Many Colombians who traveled through the Sabana between the 1940s and 1960s – and even into the 1970s – recall similarly striking fields of wheat and commonly noted its preponderance. But many only remember this if they are prompted. The more

¹ W.E. Dunn and Linda T. Dunn, "Down the Magdalena," *Agriculture in the Americas* 5 (August 1945): 143-146, 143.

current uses of this land – cattle and cut flowers primarily – seem to have become projected onto the past and few people readily identify the Sabana as Colombia's breadbasket of yore. That the country once almost achieved self-sufficiency in this grain seems unfathomable to most of its citizens today.

This dissertation has traced some of the economic, political, social, and cultural reasons for the decline of this staple crop in Colombia. Despite the intense efforts of Colombia's agronomists, assisted by the Rockefeller Foundation, wheat production, which steadily increased between the 1930s and the 1950s, declined precipitously beginning in the early 1960s, until it essentially became, as Eduardo Caballero Calderón had predicted in 1959, a crop mainly grown in people's "backyard gardens, as a remembrance of past times."²

A variety of other economic interests, some of them aligned, others not, nevertheless worked together to ensure that wheat production in Colombia would not only decline, but would ultimately come to be considered a crop that was completely unsuitable for the country's climate and growing conditions. Millers preferred grain grown in the U.S.; the Bavaria Beer Consortium promoted barley production on the same *sabana* lands used at the time for growing wheat; that same consortium also supported the development of Colombia's fertilizer industry through P.L. 480 funding, which required continued and increased importation of U.S. grain; bakers constantly shifted alliances – sometimes supporting national wheat production, other times not – depending on political conditions; the Ministry of Agriculture paid lip service to self-

² RAC, RF, 12.3, Diaries, Box 21, Eduardo Caballero Calderón, "Trigo y cebada," *El Tiempo*, August 11, 1959.

sufficiency, but undermined many of its own initiatives by providing more consistent support and funding for programs to expand the production of crops required for industrial purposes. At the same time, powerful wheat interests from the U.S. Midwest and the USDA worked to disparage Colombian wheat as inferior and propagate the idea that wheat was a temperate crop, unsuitable for production in tropical regions such as Colombia – an idea of Colombia that ignored the temperate-like climate in its highland regions. In other words, a whole host of interests, aligned and unaligned, worked together to damage national production and reduce it to a few thousand tons a year.

But this story of a failed attempt to achieve self-sufficiency in agricultural production of an important staple crop involves more than merely the uncovering and re-telling of who, when, when, and where. This unfulfilled promise of import substitution agriculture tells us crucial things about Colombia's mid-century economic, political, and social development overall. In some crucial ways, this nuanced portrait of the failure of wheat production to mature in Colombia reflects what is generally accepted as Colombian history: although coffee production always remained the backbone of the Colombian economy, the importance of agricultural interests overall declined over the course of the twentieth century. Industrial interests, on the other hand, grew in prominence, collectively becoming the voices that had the power to shape public policy. This power, however, was wielded by a small group of wealthy industrialists, in ways that were often inimical to the general welfare of the nation, and the poorer and working classes more specifically.

Clearly, the ability of the Bavaria Beer Consortium to shape public policy to favor the production of barley instead of wheat – in other words, an industrial crop rather than an alimentary one – reflects a shift in the concentration of power in Colombia from the countryside to the city. Similarly, the efforts of the primary bakers' organization to first associate itself with the "gentlemen industrialists" in order to shape public policy, and then later to resort to the rhetoric of class conflict as the nation's mood shifted in the early 1960s provides a strong example of the power of a reduced group of industrial elites to shape public policy.

But, looking at this story solely in those terms obscures the things that it reveals about Colombian nation-, state-, and class formation. Yes, Colombia's agronomists and wheat breeders tried and failed to promote wheat production throughout the Sabana de Bogotá. But, in the process, they developed a discourse of the nation focused on the productivity of its soil and climate, and the agricultural scientists who worked to make that soil and climate help the country achieve self-sufficiency. Moreover, they did so by challenging the imperial claims from northern climes, that disparaged both Colombia's soil and weather, as well as the work of its agronomists.

Similarly, while it is true that the artisan-bakers were unable to challenge the economic might of the nation's more powerful industrial interests, they infused their attempts to do so in a discourse of the state that consistently defined what the proper relationship between a state and its citizenry should be. This relationship was one in which the state balanced all of the country's economic interests, considering players large and small, rather than just a small wealthy handful. It was one in which the voices

of the weak were given equal weight and where democracy worked for everyone and not just a few special interests. In the process of articulating their vision of the state and the citizenry, they engaged in processes of popular state-formation, processes that have been little studied in Colombia.

The same is true for the coalition of Colombian agronomists, sympathetic members of the Ministry of Agriculture, and representatives of the Rockefeller Foundation in Colombia. Although they did not succeed in pushing public policy to favor the production of alimentary crops instead of industrial ones (at least for wheat), their attempts to shape public discourse about wheat production also demonstrate active efforts to construct a state, one in which the needs of the many are not subordinated to the desires of the few (at least as they defined them). Their careful, considered, and successful attempts to place editorials, press releases, interviews, and reports on the activities of the nation's wheat-focused agricultural experiment stations in the country's primary newspapers show processes of state-formation in action. Moreover, their discursive constructions, like that of the bakers, show their attempts to define the state as an entity that should focus directly on the welfare of the general population through food production and the achievement of agricultural self-sufficiency rather than dependency on foreign imports for the nation's food supply.

Thus, this dissertation does double-duty: it uncovers a (purposely) forgotten episode in Colombian history while also demonstrating how those forgotten episodes describe crucial elements of Colombian nation- and state-formation. In the process, it illustrates the importance of looking at economic development policies such as import

substitution industrialization through a lens focused on society, culture, and politics, rather than one focused merely on macro-economic projections and/or economic explanations of why those policies “failed.” Examining those policies in these ways reveals them to be far more productive processes than is currently allowed.

BIBLIOGRAPHY

Archives

Archivo General de la Nación

- Presidencia de la República, Colección Rojas Pinilla

Rockefeller Archive Center (Tarrytown, New York)

- Rockefeller Foundation, Record Group 1.2, Series 311, Colombia
- Rockefeller Foundation, Agricultural Reports, Colombian Agriculture Program

Faculty of Agronomy, Universidad Nacional de Colombia, Medellín

- Dean's Correspondence
- Matriculation Records

Interviews (conducted by the author)

José Joaquín Castaño. (Agronomist (ret.), Faculty of Agronomy, UNAL.) Medellín, April 4, 2008.

Jairo Correa Velázquez. (Agronomist (ret.), Faculty of Agronomy, UNAL.) Medellín, April 11, 2008.

Jairo Cano. (Agronomist, IICA-UNAL.) Bogotá, July 9, 2008.

Tania Katz. (Owner, La Cometa (Bakery). Bogotá, July 15, 2008.

Magazines, Journals, Almanacs, Serial Publications

Agricultura Tropical (journal of the Colombian Association of Agronomic Engineers)

Agriculture in the Americas (USDA, Office of Foreign Agricultural Relations, 1941-1947)

Almanaque Creditario (annual almanac of the Caja de Crédito Agrario, Industrial y Minero)

Carta Extensionista

Colombia Campesina

Colombia Económica

Foreign Agriculture (USDA, Office of Foreign Agricultural Relations, 1946-1954)

Negocios

El Panadero Colombiano

Revista del Banco de la República

Revista de la Facultad Nacional de Agronomía (Faculty of Agronomy, UNAL, Medellín)

Revista Nacional de Agricultura

Agricultural Bulletins

Agricultura (Ministerio de Agricultura y Comercio, 1936-1938)
Agricultura y Ganadería (Ministerio de la Economía Nacional, 1939-1941)
Boletín de Agricultura (Ministerio de Industrias, 1931-1933)
Boletín de información agropecuaria (Caja de Crédito Agrario, 1958-1961)
The Wheat Situation (USDA, Bureau of Agricultural Economics, 1935-1966)

Industrial-Agricultural Directories/Promotional Literature/Economic Atlases

ANDI: Industrias de Colombia, 1964. Bogotá: Editorial Minerva Ltda., 1964.
Antioquia, tierra de trabajo y progreso. Medellín: La Industria Antioqueña/Interprint, 1961.
Atlántico, 50 años: Un homenaje al departamento del Atlántico en el primer cincuentenario de su fundación. Medellín: La Corporación Cívica de Barranquilla/Interprint, 1960.
Atlas de economía colombiana, cuarta entrega: Aspectos agropecuarios y su fundamento ecológico. Bogotá: Banco de la República, Departamento de Investigaciones Económicas, 1964.
Barranquilla en cifras. Bogotá: Departamento Administrativo Nacional de Estadística, 1967.
Camacho Angarita, Alberto, and Plinio Mendoza Neira, eds. *Geografía económica de Colombia*. Bogotá: *El Mes Financiero y Económico* (No. 100), 1946.
Camacho Leyva, Ernesto, ed. *Guía agropecuaria de Colombia*, 1955. Bogotá: Instituto Colombiano de Opinión Pública, 1955.
Colombia en cifras, 1948-1949. Bogotá: *El Mes Financiero y Económico* (5ª edición extraordinaria), 1949.
Directorio nacional de explotaciones agropecuarios (Censo Agropecuario), 1960, Volumen I: Departamento de Cundinamarca. Bogotá: Departamento Administrativo Nacional de Estadística, 1960.
Directorio nacional de explotaciones agropecuarios (Censo Agropecuario), 1960, Volumen II: Departamento de Caldas. Bogotá: Departamento Administrativo Nacional de Estadística, 1962.
Marketing Kansas Wheat. Topeka: Kansas State Board of Agriculture, Kansas Wheat Commission 1959.
Osorio Gallego, José. *Progreso rural en Boyacá, 1954-1960: En siete años de labores el STACA ha iniciado una revolución educativa en los campos del Departamento de Boyacá, gracias a su moderno servicio de extensión agrícola*. Bogotá: Aedita Editores Ltda., 1961.
Poveda Ramos, Gabriel. *ANDI y la industria en Colombia, 1944-1984: 40 años*. Medellín: Asociación Nacional de Industriales, 1984.
Sarta, Benjamin, and José Consuegra. *Estructura económica de Barranquilla*. Barranquilla: Editora del Atlántico, Devis Pereira & Cia., 1965.

Agronomic, Technical & Economic Studies/Reports

- Arana Sánchez, Jorge. "Márgenes de comercialización y algunos aspectos del mercadeo de arroz, maíz, frijol, trigo, papa." Bogotá: Instituto Nacional de Abastecimientos, June 1961.
- De Schlesinger, Lucía, and Clara Lucía Rodríguez. "Fase I: Trigo, harina y pan en Colombia: Informe de progreso del proyecto de harinas compuestas." Bogotá: Instituto de Investigaciones Tecnológicas, 1971.
- Estudio de viabilidad para el ensanche de la red de almacenamiento para granos del INA.* Bogotá: Instituto Latinoamericano de Mercadeo Agrícola, 1964.
- Goering, Theodore J. "Wheat Production in Colombia: A Study of the Colombian Wheat Industry with Projections of Production for the Years 1965 and 1975." Palmira: Universidad Nacional de Colombia, Facultad de Agronomía, 1962.
- "Industrialización de productos agrícolas y relacionados en Colombia. Volumen I: Industria de molinería, panadería y pastas alimenticias." Bogotá: Instituto de Investigaciones Tecnológicas, June 1968.
- Iregui Borda, Alvaro, Jorge Vergara García, and Gustavo Pérez Angel. "El problema nutricional en la clase obrera colombiana: Producción de alimentos populares: I - Algunos aspectos de la situación económico-nutricional de la población obrera en Colombia: Calorías y proteínas." Bogotá: Bavaria, S.A., December 1962.
- "Levantamiento agrológico del Valle de Ubaté-Chiquinquirá, Departamentos de Cundinamarca y Boyacá, LD-&." Bogotá: Instituto Geográfico "Agustín Codazzi," 1963.
- Nuttison, M.Y. "A Comparative Study of Lower and Upper Limits of Temperature in Measuring the Variability of Day-Degree Summations of Wheat, Barley, and Rye." Washington, DC: American Institute of Crop Ecology (study sponsored by the United States Weather Bureau under Contract Cwb-8737), 1956.
- Shellenberger, J.A. "The Milling and Baking Industries of Peru." Report to the Servicio Cooperativo Inter-Americano de Producción de Alimentos, Lima, Peru, 1946. Washington, DC: The Institute of Inter-American Affairs, Food Supply Division, May 1947.

Governmental Reports & Publications (Colombia)

- Alba Robayo, Vicente. "Vocabulario de los cultivos de maíz y trigo en algunas localidades de Colombia." Informe técnico No. 001, Instituto Colombiano Agropecuario (ICA), Departamento de Ciencias Sociales, Programa Nacional de Comunicación de Masas, Bogotá, November 1972.
- Análisis comparativo de los precios al por mayor de productos agrícolas básicos durante los años de 1966 y 1967.* Bogotá: Instituto de Mercadeo Agropecuario, 1968.
- Castro Romero, Jorge. *Panorama agro-pecuario y socio-económico de Boyacá.* Tunja: Contraloría General de Boyacá, 1967.

- “Estudio de prefactibilidad de la zona Soacha-Silvania: Proyecto Cundinamarca No. 4.” Bogotá: Instituto Colombiano de Reforma Agraria, 1971.
- “Factores sociales que inciden en el desarrollo económico de la hoya del Río Subachoque. Estudio presentado a la Corporación Autónoma Regional de la Sabana de Bogotá y de los Valles de Ubaté y Chiquinquirá (CAR), en cumplimiento del Contrato No. 23 de 1962, suscrito entre la CAR y la Universidad Nacional de Colombia [Facultad de Sociología].” Bogotá: CAR, 1963.
- Geografía económica de Colombia I: Antioquia.* Bogotá: Contraloría General de la República, 1935.
- Geografía económica de Colombia II: Atlántico.* Bogotá: Contraloría General de la República, 1936.
- Geografía económica de Colombia III: Boyacá.* Bogotá: Contraloría General de la República, 1936.
- Geografía económica de Cundinamarca, Tomo II: Agricultura y ganadería.* Bogotá: Contraloría General de la República, 1958.
- López Machado, Juan. “La industria manufacturera en el área de la CAR (Estudio preliminar).” Bogotá: Corporación Autónoma Regional de la Sabana de Bogotá y de los Valles de Ubaté y Chiquinquirá, September, 1966.
- Plan de Boyacá: Inversiones 1954-1958.* Bogotá: Presidencia de la República, Dirección Nacional de Planeación Económica y Fiscal, 1954.
- Plan general de desarrollo económico y social: Primera parte – El programa general.* Bogotá: Consejo Nacional de Política Económica y Planeación, 1962.
- Plan general de desarrollo económico y social: Segunda parte – Industria.* Bogotá: Consejo Nacional de Política Económica y Planeación, 1962.
- Primer censo industrial de Colombia-1945: Departamento de Atlántico.* Bogotá: Contraloría General de la República, 1947.
- Primer censo industrial de Colombia-1945: Departamento de Antioquia.* Bogotá: Contraloría General de la República, 1947.
- Primer censo industrial de Colombia-1945: Departamento de Boyacá.* Bogotá: Contraloría General de la República, 1947.
- Primer censo industrial de Colombia-1945: Departamento de Cundinamarca.* Bogotá: Contraloría General de la República, 1947.
- Primer censo industrial de Colombia-1945: Departamento de Nariño.* Bogotá: Contraloría General de la República, 1948.
- Producción nacional: Estudio sobre los principales aspectos del desarrollo de la producción agropecuaria.* Bogotá: Caja de Crédito Agrario, Industrial y Minero, Departamento de Investigaciones Económicas, 1955.
- Proyecto de irrigación de Subachoque.* Bogotá: Corporación Autónoma Regional de la Sabana de Bogotá y de los Valles de Ubaté y Chiquinquirá, 1963.
- Varela Martínez, Raúl. *La mecanización de la agricultura en Colombia.* Bogotá: Ministerio de Agricultura, Economía Rural, 1951.

- Vega J., Victor M., Guy B. Baird, and Manuel Rodríguez J. "Boletín técnico No. 4: Algunos aspectos de la fertilización del trigo en suelos de la Sabana de Bogotá y alrededores." Bogotá: Departamento de Investigaciones Agropecuarias, Ministerio de Agricultura, August 1959.
- Vollert Jaimes, Klaus, Alfonso Londoño Domínguez, Carlos Arturo Iragorri, R. & Francisco Cardona Bravo. "Informe No. 4: Trigo, harina y pastas alimenticias." Bogotá: Ministerio de Fomento, Ramo Técnico, June 1961.

Governmental Reports & Publications (U.S.)

- Baehr, Henry A., Edward J. Bell, and Archie M. Camp. "Market Potentialities for Wheat and Wheat Flour in the Far East." Foreign Agriculture Report, No. 50, USDA, Office of Foreign Agricultural Relations, June 1950.
- Blumenfield, Stewart, Maria-Bernardita Flores, Maura Mack, and Robert Pooley. "PL 480 Title II: A Study of the Impact of a Food Assistance Program in the Philippines." A.I.D. Program Evaluation Report No. 6, Bureau for Asia, U.S. Agency for International Development, Washington DC, August 1982.
- Chaudhri, Saeed Ahmed. "Agricultural Research in Pakistan: 25 years of collaboration in Agricultural Research between Pakistan and United States of America, under PL 480 program." Washington, DC: United States Department of Agriculture & Pakistan Agricultural Research Council, 1985.
- "PL 480 Title II Activities in El Salvador: A Program Evaluation." Washington, DC: Agency for International Development (under Contract AID/la-650) & Robert R. Nathan Associates, Inc., July 1971.
- Scoville, Orlin J. "The Great Plains and the Supply of Wheat." *Farm Management Reports*, no. 23, USDA, Bureau of Agricultural Economics, Division of Farm Management and Costs, Washington, DC, May 1941.
- Stewart, H.L. "Changes on Wheat Farms in Southwestern Kansas, 1931-1937." *Farm Management Reports*, no. 7, USDA, Bureau of Agricultural Economics, Division of Farm Management and Costs, Washington, DC, June 1940.
- U.S. President. "Semi-Annual Reports on Activities Carried on Under Public Law 480." Reports submitted to the House of Representatives, 1954-1964.
- Washburn, R.S. "Organization and Crop Production Practices on Grain Farms in Selected Areas of the Northern Great Plains." *Farm Management Reports*, no. 2, USDA, Bureau of Agricultural Economics, Division of Farm Management and Costs, Washington, DC, December 1939.
- Welsh, Joseph Rick. "P.L. 480 Title I and Market Development." Foreign Agricultural Service, FAS Staff Report No. 28, December 1992.
- Wylie, Kathryn H. "The Agriculture of Colombia." Foreign Agriculture Bulletin No. 1, Washington, D.C.: USDA, October 1942.

Master's Theses (Colombia)

- Chamorro, T., Luís F. "El cultivo del trigo en Nariño." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1952.
- Chavarriaga, Eduardo. "Plan de organización de los servicios de fomento agrícola en Colombia." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Bogotá, 1936.
- Chaves, Ricardo. "Contribución al estudio de los fertilizantes para el trigo en México." Unpublished Master's thesis, UNAL, Facultad de Agronomía del Valle, 1952.
- Contreras S., Rafael E. "Observaciones ecológicas en un cultivo de trigo de la variedad Diacol Nariño." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1962.
- Correa Cancino, Luís Hernando. "Una orientación técnico-económica de la industria triguera de Barragan." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1948.
- Duran de Cadena, Lucía. "Análisis de la demanda de harina de trigo y semola en Colombia." Unpublished Master's thesis, Universidad Nacional-Instituto Colombiano Agropecuario, Programa de Estudios para Graduados, Bogotá, 1974.
- Mendoza Dávila, Luz Marina & Maria Mercedes Coy Hernández. "La producción interna e importación del trigo en Colombia." Unpublished Master's thesis, Universidad Social Católica de la Salle, Facultad de Economía, 1979.
- Montes R., Jesús A. "Consideraciones económicas sobre el incremento del trigo en Colombia y estudio experimentaciones y observaciones sobre su cultivo en Santander del Norte." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1941.
- Moscoso Rodríguez, Alberto. "Análisis de la producción del trigo en Colombia." Unpublished Master's thesis, Universidad La Gran Colombia, Bogotá, 1963.
- Navarrete P., Carlos. "Plan para multiplicación de variedades nuevas de trigo." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1952.
- Ortíz del Hierro, Carlos. "El cultivo del trigo en el departamento de Nariño." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1965.
- Orjuela Navarrete, Juan. "Intensidad de royas del trigo en la Sabana de Bogotá y en Fusagasuga." Unpublished Master's thesis, Facultad de Agronomía, Medellín, 1952.
- París Navarro, Rafael. "Fotoperiodismo y temperatura en variedades de trigo en la Sabana de Bogotá." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1952.
- Peña Acosta, Luís G. "Producción, certificación, distribución de semillas mejoradas de trigo en Colombia." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1964.
- Reaga Santos, Hernando. "Características y posibles usos de algunos trigos colombianos." Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1952.

- Rojas Muñoz, Luís Alberto. "Control químico de malezas en trigo y cebada."
Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1964.
- Rosero M., Manuel J. "Herencia de la resistencia del trigo a la roya amarilla (*Puccinia Glumarum* (Schm.) Eriks & Henn). Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1959.
- Villamizar Andrade, Francisco. "Planeamiento de ensayo internacional de trigos."
Unpublished Master's thesis, UNAL, Facultad de Agronomía, Medellín, 1952.

Miscellaneous

- Arango, Fabio. *Guía práctica para el cultivo del trigo*. Bogotá: Editorial Cosmos, 1957.
- "Estudio sobre los molinos del trigo del país." Presentación del INA, División-Técnica al Congreso Nacional del Trigo, Bogotá, November 1964.
- Great Plains Wheat, Inc. "A Tour of the U.S. Wheat Industry by the Colombian Wheat Team, August 13-September 5, 1961." Garden City, KS: GPW/OFAR/USDA, 1961.
- "Informe de la Comisión Nombrada por la Asamblea General de Accionistas de Bavaria, S.A." Bogotá: Bavaria, 1969.
- "Material presentado por el Departamento de Investigaciones Económicas al Congreso Nacional del Trigo, Bogotá, November 1964." Instituto Nacional de Abastecimientos.
- Rosero, Manuel. "Algunos problemas sobre el cultivo de trigo en Colombia."
Presentation at the Faculty of Agronomy, National University of Colombia, Medellín, October 15, 1955.

Other Published Primary Sources

- Adams, Dale W., Guillermo A. Guevara A., Philip F. Warnken, Richard G. Wheeler, and Lawrence W. Witt. "Public Law 480 and Colombia's Economic Development."
Medellín: Universidad Nacional de Colombia, 1964.
- Black, C.A., L.B. Nelson, and W.L. Pritchett. "Nitrogen Utilization by Wheat as Affected by Rate of Fertilization." *Soil Science Society of America, Proceedings* 1946 11 (1947): 393-396.
- Beltrán, B., Jorge A. "Factores económicos y sociales relacionados con la sustitución de trigo en pan y pastas." *Revista del Instituto de Investigaciones Tecnológicas*, no. 97 (September/October 1975): 8-21.
- Bowman, Ferne, Leta Maharg, and J.M. Poehlman. "Testing Missouri soft wheat flours for quality: Methods and variety comparisons." Research Bulletin 480, University of Missouri, College of Agriculture, Agricultural Experiment Station, July, 1951.

- Camacho Roldán, Salvador. "La agricultura en Colombia." In *Escritos sobre economía y política*, edited by Jesús A. Bejarano, 115-130. Bogotá: Instituto Colombiano de Cultura, 1976.
- Elliot, B.B., and A.C. Leopold. "A Relationship between Photoperiodism and Respiration." *Plant Physiology* 27 (October 1952): 787-793.
- Fifield, C.C., Ray Weaver, and J.F. Hayes. "Bread Loaf Volume and Protein Content of Hard Red Spring Wheats." *Cereal Chemistry* 27 (September 1950): 383-390.
- "Food for Peace." ASA Special Publication No. 1, April 1963. Madison, WI: American Society of Agronomy, 1963.
- Garner, W.W. "Recent Work on Photoperiodism." *Botanical Review* 3 (May 1937): 259-275.
- Garner, W.W., and H.A. Allard. "Effects of the Relative Length of Day and Night and Other Factors of the Environment on Growth and Reproduction in Plants." *Journal of Agricultural Research*, no. 18 (1920): 553-606.
- Hamner, Karl C. "Correlative Effects of Environmental Factors on Photoperiodism." *Botanical Gazette* 99 (March 1938): 615-629.
- Hanson, Haldore, Norman E. Bourlag, and R. Glenn Anderson. *Wheat in the Third World*. Boulder: Westview Press, 1982.
- Harding, Elizabeth R., Elizabeth Hamilton Bay, Dorothy Tyrrell, Adelia Weis, and Bertha Bisbey. "A Nutritious Bread." Research Bulletin 478, University of Missouri, College of Agriculture, Agricultural Experiment Station, July, 1951
- Hlynka, I. (ed.). *Wheat Chemistry and Technology*. St. Paul, MN: American Association of Cereal Chemists, 1964.
- Hunt, Charles H., Lorraine D. Rodríguez, and R. M. Bethke. "The Environmental and Agronomical Factors Influencing the Thiamine, Riboflavin, Niacin, and Pantothenic Acid Content of Wheat, Corn, and Oats." *Cereal Chemistry* 27 (March 1950): 79-96.
- "La multiplicación de la cebada y de los pesos; 91 millones cosechan dos agrónomos." *La Nación Agrícola: Una Revista para Agricultores y Ganaderos Progresistas* (July 1961): 7-11.
- Leopold, A.C. "Photoperiodism in Plants." *The Quarterly Review of Biology* 26 (September 1951): 247-263.
- Lleras Camargo, Alberto. *El primer gobierno del Frente Nacional, Tomo Primero (mayo de 1958-agosto de 1959)*. Bogotá: Imprenta Nacional, 1960.
- *El primer gobierno del Frente Nacional, Tomo Segundo (agosto de 1959-julio de 1960)*. Bogotá: Imprenta Nacional, 1960.
- Loftin, Horace. "Time for a Change." *The Science News-Letter* 64 (August 15, 1953): 106-107.
- López, Alejandro. *Problemas colombianos*. Medellín: La Carreta, 1976 (2nd edition).
- Malenbaum, Wilfred. *The World Wheat Economy, 1885-1939*. Cambridge: Harvard University Press, 1953.
- McGovern, George S. *War against Want: America's Food for Peace Program*. New York: Walker & Co., 1964.

- Mikesell, Raymond F. *Agricultural Surpluses and Export Policy*. Washington, DC: American Enterprise Association, 1958.
- Miller, Byron S., Joann Y. Seiffe, J.A. Shellenberger, and G.D. Miller. "Amino Acid Content of Various Wheat Varieties I. Cystine, Lysine, Methionine, and Glutamic Acid." *Cereal Chemistry* 27 (March 1950): 96-106.
- Murneek, A.E., and R.O. Whyte, eds. *Vernalization and Photoperiodism, A Symposium*. Waltham, MA: Chronica Botanica Company, 1948.
- O'Mara, J.G. "A Photoperiodism Accompanying Autotetraploidy." *The American Naturalist* 76 (July-August 1942): 386-393.
- Quisenberry, K.S., and L.P. Reitz, eds. *Wheat and Wheat Improvement*. Madison: American Society of Agronomy, Inc., 1967.
- Rutter, W. P. *Wheat-Growing in Canada, the United States and the Argentine*. London: Adam and Charles Black, 1911.
- Stakman, E.C., Richard Bradfield, & Paul C. Mangelsdorf. *Campaigns against Hunger*. Cambridge: The Belknap Press of Harvard University Press, 1967.
- Starkey, E.J. "Photoperiodism and Chrysanthemum Production." *Science* 76 (December 23, 1932): 594-595.
- Steen, Herman. *Flour Milling in America*. Minneapolis: T.S. Denison & Company, Inc., 1963.
- Swanson, C.O. *Wheat and Flour Quality*. Minneapolis: Burgess Publishing Company, 1938.
- Tontz, Robert L., ed. *Foreign Agricultural Trade: Selected Readings*. Ames: The Iowa State University Press, 1966.
- Wanser, H.M. "Photoperiodism of Wheat: A Determining Factor in Acclimatization." *Science* 56 (September 15, 1922): 313-315.

Secondary Sources

- Abel, Christopher. *Política, iglesia y partidos en Colombia*. Bogotá: FAES, UNAL, 1987.
- , "External Philanthropy and Domestic Change in Colombian Health Care: The Role of the Rockefeller Foundation, ca. 1920-1950." *The Hispanic American Historical Review* 75 (August 1995): 339-376.
- Acevedo, Albeiro, Guillermo Quirós, and Ramiro Restrepo. "Una aproximación sobre el desarrollo industrial colombiano, 1958-1980." In *Lecturas sobre economía colombiana, siglo XX*, edited by Jesús A. Bejarano, 11-44. Bogotá: Procultura, 1985.
- Angel Vallejo, Jorge. *100 años de Bavaria: Una historia de la industria cervecera de Colombia*. Medellín: Editorial Lealon, 1990.
- Antrosio, Jason. "Inverting Development Discourse in Colombia: Transforming Andean Hearths." *American Anthropologist* 104 (December 2002): 1110-1122.
- Appelbaum, Nancy. *Muddied Waters: Race, Region, and Local History in Colombia, 1846-1948*. Durham: Duke University Press, 2003.

- Arias Trujillo, Ricardo. *Los leopardos. Una historia intelectual de los años 1920*. Bogotá: Uniandes-Ceso-Departamento de Historia, 2007.
- Archila Neira, Mauricio. *Aquí nadie es forastero. Testimonios sobre la formación de una cultura radical: Barrancabermeja 1920-1950*. Bogotá: CINEP, 1978.
- , *Cultura e identidad obrera: Colombia, 1910-1945*. Bogotá: CINEP, 1991.
- , *Idas y venidas, vueltas y revueltas: Protestas sociales en Colombia, 1958-1990*. Bogotá: ICANH/CINEP, 2003).
- , "Los movimientos sociales (1958-2006)." In *Historia de las ideas políticas en Colombia: De la Independencia hasta nuestros días*, edited by José Fernando Ocampo T., 345-376. Bogotá: Instituto de Estudios Sociales y Culturales PENSAR, 2008.
- Arroyo A., Ricardo. "Pasto pionero de la industria harinera de Colombia." *Cultura Nariñense* no. 41 (November 1971): 30-34.
- Ayala Diago, César Augusto. *Resistencia y oposición al establecimiento del Frente Nacional: Los orígenes de la Alianza Nacional Popular (ANAPO) Colombia 1953-1964*. Bogotá: Universidad Nacional de Colombia, 1996.
- Babb, Sarah. *Managing Mexico: Economists from Nationalism to Neoliberalism*. Princeton: Princeton University Press, 2001.
- Barahona, Ana, Susan Pinar, & Francisco J. Ayala. "Introduction and Institutionalization of Genetics in Mexico." *Journal of the History of Biology* 38 (Summer 2005): 273-299.
- Barbosa Estepa, Reinaldo. *Guadalupe y sus centauros: Memorias de la insurrección llanera*. Bogotá: CEREC, 1992.
- Bassett, Ross. "MIT-Trained Swadeshis: MIT and Indian Nationalism, 1880-1947." *Osiris* 24, no. 1 (2009): 212-230.
- Bebbington, Anthony. "Reencountering Development: Livelihood Transitions and Place Transformations in the Andes." *Annals of the Association of American Geographers* 90 (September 2000): 495-520.
- Beeman, Randal S. and James A. Pritchard. *A Green and Permanent Land: Ecology and Agriculture in the Twentieth Century*. Lawrence, KS: University Press of Kansas, 2001.
- Bejarano, Jesús Antonio. *Economía y poder: La SAC y el desarrollo agropecuario colombiano, 1871-1984*. Bogotá: Fondo Editorial CEREC, 1985.
- , *Historia económica y desarrollo: La historiografía económica sobre los Siglos XIX y XX en Colombia*. Bogotá: CEREC, 1994.
- , "Las ciencias agropecuarias hasta mediados del siglo XX." In *Minagricultura 80 años: La agricultura y las políticas sectoriales*, compiled by Absalón Machado Cartagena, 175-206. Bogotá: TM Editores, 1994.
- Berquist, Charles. *Coffee and Conflict in Colombia, 1886-1910*. Durham: Duke University Press, 1978.
- Birn, Anne-Emanuelle. *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico*. Rochester: University of Rochester Press, 2006.
- Bonilla, Heraclio, and Gustavo Montañez, eds. *Colombia y Panamá: La metamorfosis de la nación en el siglo XX*. Bogotá: UNAL, 2004.

- Brennan, James P. "Prolegomenon to Neoliberalism: The Political Economy of Populist Argentina, 1943-1976." *Latin American Perspectives* 34 (May 2007): 49-66.
- Braun, Herbert. *The Assassination of Gaitán: Public Life and Urban Violence in Colombia*. Madison: University of Wisconsin Press, 1985.
- Brumberg, Stephan F. "Colombia: A Multimedia Rural Education Program." In *Education for Rural Development: Case Studies for Planners*, edited by Ahmed Manzoor and Philip H. Coombs, 2-60. New York: Praeger Publishers, 1975.
- Bucheli, Marcelo. *Bananas and Business: The United Fruit Company in Colombia, 1899-2000*. New York: New York University Press, 2005.
- Bulmer-Thomas, Victor. *The Economic History of Latin America since Independence*. Cambridge: Cambridge University Press, 2003, 2nd edition.
- Bulmer-Thomas, Victor, John H. Coatsworth, and Roberto Cortés Conde, eds. *The Cambridge Economic History of Latin America*. Cambridge: Cambridge University Press, 2006.
- Bushnell, David. *Eduardo Santos and the Good Neighbor, 1938-1942*. Gainesville: University of Florida Press, 1967.
- Cañizares-Esguerra, Jorge. "New World, New Stars: Patriotic Astrology and the Invention of Indian and Creole Bodies in Colonial Spanish America, 1600-1650." *The American Historical Review* 104 (February 1999): 36-68.
- . *How to Write the History of the New World: Histories, Epistemologies, and Identities in the Eighteenth-Century Atlantic World*. Stanford: Stanford University Press, 2001.
- Cardenas, Enrique, José Antonio Ocampo, and Rosemary Thorp. eds. *An Economic History of Twentieth Century Latin America, Vol. 1, The Export Age: The Latin American Economies in the Late Nineteenth and Early Twentieth Centuries*. New York: Palgrave, 2000.
- . *An Economic History of Twentieth Century Latin America, Vol. 3, Industrialization and the State in Latin America: The Postwar Years*. New York: Palgrave, 2000.
- Cardoso, Fernando Henrique, and Enzo Faletto. *Dependency and Development in Latin America*. Berkeley: University of California Press, 1979.
- Christie, Keith. *Oligarcas, campesinos y política en Colombia: Aspectos de la historia socio-política de la frontera antioqueña*. Bogotá: Universidad Nacional de Colombia, 1986.
- Coatsworth, John H., and Roberto Cortés Conde, eds. *The Cambridge Economic History of Latin America*. Cambridge: Cambridge University Press, 2006.
- Chaparro, Fernando, and Francisco R. Sagasti, eds. *Ciencia y tecnología en Colombia*. Bogotá: Instituto Colombiano de Cultura, 1978.
- Christie, Keith. *Oligarcas, campesinos y política en Colombia: Aspectos de la historia socio-política de la frontera antioqueña* (Bogotá: UNAL, 1986).
- Cotter, Joseph. "The Rockefeller Foundation's Mexican Agricultural Project: A Cross-Cultural Encounter, 1943-1949." In *Missionaries of Science: The Rockefeller*

- Foundation & Latin America*, edited by Marcos Cueto, 97-125. Bloomington: Indiana University Press, 1994.
- , *Troubled Harvest: Agronomy and Revolution in Mexico, 1880-2002*. Westport: Praeger, 2003.
- Cueto, Marcos. ed. *Missionaries of Science: The Rockefeller Foundation & Latin America*. Bloomington: Indiana University Press, 1994.
- Cueto, Marcos. "Sanitation from Above: Yellow Fever and Foreign Intervention in Peru, 1919-1922." *The Hispanic American Historical Review* 72 (February 1992): 1-22.
- Cupples, Julie, Kevin Glynn, and Irving Larios. "Hybrid Cultures of Postdevelopment: The Struggle for Popular Hegemony in Rural Nicaragua." *Annals of the Association of American Geographers* 97 (December 2007): 786-801.
- Currie, Lauchlin. *The Role of Economic Advisers in Developing Countries*. Westport: Greenwood, 1981.
- Curry, George N. "Moving Beyond Postdevelopment: Facilitating Indigenous Alternatives for 'Development.'" *Economic Geography* 79 (October 2003): 405-423.
- Deas, Malcolm. "Miguel Antonio Caro and Friends: Grammar and Power in Colombia." *History Workshop* 34 (Autumn 1992): 47-71.
- Delpar, Helen. *Red against Blue: The Liberal Party in Colombian Politics, 1863-1899*. University: University of Alabama Press, 1981.
- Dezalay, Yves, and Bryant G. Garth. *The Internationalization of Palace Wars: Lawyers, Economists, and the Contest to Transform Latin American States*. Chicago: University of Chicago Press, 2002.
- Dosman, Edgar J. *The Life and Times of Raúl Prebisch, 1901-1986*. Montreal: McGill-Queens University Press, 2008.
- Eakin, Marshall C. *Tropical Capitalism: The Industrialization of Belo Horizonte, Brazil*. New York: Palgrave, 2002.
- Edelman, Marc. "Agricultural Modernization in Smallholding Areas of Mexico: A Case Study in the Sierra Norte de Puebla." *Latin American Perspectives* 7 (Autumn 1980): 29-49.
- Eraso E., Alfredo, ed. *La historia del trigo en Colombia*. Pasto: FENALCE, 2004.
- Escobar, Arturo. *Encountering Development: The Making and Unmaking of the Third World*. Princeton: University of Princeton Press, 1995.
- Esteva, Gustavo. *The Struggle for Rural Mexico*. South Hadley, MA: Bergin & Garvey, 1983.
- Evans, Peter. *Dependent Development: The Alliance of Multinationals, State, and Local Capital in Brazil*. Princeton: Princeton University Press, 1979.
- Fals Borda, Orlando. *El hombre y la tierra en Boyacá: Bases sociológicas e históricas para una reforma agraria*. Bogotá: Ediciones Documentos Colombianos, 1957.
- , *Subversion and Social Change in Colombia*. New York: Columbia University Press, 1969.
- Fals Borda, Orlando, German Guzmán, and Eduardo Umaña-Luna. *La Violencia en Colombia, estudio de un proceso social*. Bogotá: Universidad Nacional de Colombia, 1962.

- Fan, Fa-ti. "Redrawing the Map: Science in Twentieth Century China." *Isis* 98 (September 2007): 524-538.
- Farnsworth, Helen C. "International Wheat Agreements and Problems, 1949-56." *The Quarterly Journal of Economics* 70 (May 1956): 217-248.
- Farnsworth-Alvear, Ann. *Dulcinea in the Factory: Myths, Morals, Men, and Women in Colombia's Industrial Experiment, 1905-1960*. Durham: Duke University Press, 2000.
- Federación Nacional de Cafeteros de Colombia. *El café en el desarrollo de Antioquia: Visión histórica y acción gremial*. Medellín: Comité Departamental de Cafeteros de Antioquia, 2000.
- Ferguson, James. *The Anti-Politics Machine: "Development," Depoliticization, and Bureaucratic Power in Lesotho*. Minneapolis: University of Minnesota Press, 1994.
- Fitzgerald, Deborah. *Every Farm a Factory: The Industrial Ideal in American Agriculture*. New Haven: Yale University Press, 2003.
- . "Exporting American Agriculture: The Rockefeller Foundation in Mexico, 1943-1953." In *Missionaries of Science: The Rockefeller Foundation and Latin America*, edited by Marcos Cueto, 72-96. Bloomington: Indiana University Press, 1994.
- Flórez Malagón, Alberto. "Una isla en un mar de sangre." *El Valle de Ubaté durante "la Violencia," 1946-1958*. Bogotá: La Carreta, 2005.
- Frank, Dana. *Buy American: The Untold Story of Economic Nationalism*. Boston: Beacon Press, 1999.
- Furtado, Celso. *Development and Underdevelopment*. Berkeley: University of California Press, 1964.
- Galeano, Eduardo. *Open Veins of Latin America: Five Centuries of the Pillage of a Continent*. New York: Monthly Review Press, 1973.
- Galvis, Silvia, and Alberto Donadio. *Colombia Nazi, 1939-1945: Espionaje alemán, La cacería del FBI, Santos, López y los pactos secretos*. Bogotá: Planeta Colombiana Editorial, 1986.
- . *El jefe supremo: Rojas Pinilla en la Violencia y en el poder*. (Medellín: Hombre Nuevo Editores, 2002, 2nd edition).
- Gauss, Susan M. *Made in Mexico: Regions, Nation, and the State in the Rise of Mexican Industrialism, 1920s-1940s*. University Park: Pennsylvania University Press, 2010.
- Goldsmith, Arthur A. "The Rockefeller Foundation Indian Agricultural Program: Why It Worked." In *Philanthropy and Cultural Context: Western Philanthropy in South, East, and Southeast Asia in the Twentieth Century*, edited by Soma Hewa & Phil Hove, 85-114. Lanham, MD University Press of America, Inc., 1997.
- Gootenberg, Paul. *Imagining Development: Economic Ideas in Peru's "Fictitious Prosperity" of Guano, 1840-1880*. Berkeley: University of California Press, 1993.
- Gow, David D. *Countering Development: Indigenous Modernity and the Moral Imagination*. Durham: Duke University Press, 2008.
- Green, W. John. *Gaitanismo, Left Liberalism, and Popular Mobilization in Colombia*. Gainesville: University of Florida Press, 2003.
- . "Sibling Rivalry on the Left and Labor Struggles in Colombia during the 1940s." *Latin American Research Review* 35, no. 1 (2000): 85-117.

- , "'Vibrations of the Collective': The Popular Ideology of Gaitanismo on Colombia's Atlantic Coast, 1944-1948." *The Hispanic American Historical Review* 76 (May 1996): 283-311.
- Guerrero, Javier. *Los años del olvido: Boyacá y los orígenes de la Violencia*. Bogotá: TM Editores, 1991.
- Gupta, Akhil. *Postcolonial Developments: Agriculture in the Making of Modern India*. Durham: Duke University Press, 1998.
- Harland, S.C. "Nicolai Ivanovitch Vavilov. 1885-1942." *Obituary Notices of Fellows of the Royal Society* 9 (November 1954): 259-264.
- Hartlyn, Jonathan. "Producer Associations, the Political Regime, and Policy Processes in Contemporary Colombia." *Latin American Research Review* 20, no. 3 (1985): 111-138.
- , *The Politics of Coalition Rule in Colombia*. New York: Cambridge University Press, 1988.
- Henderson, James, D. *Modernization in Colombia: The Laureano Gómez Years, 1889-1965*. Gainesville: University Press of Florida, 2001.
- , *When Colombia Bled: A History of the Violencia in Tolima*. University, AL: The University of Alabama Press, 1985.
- Herrera Sota, Roberto (ed.). *Antología del pensamiento conservador en Colombia*. Bogotá: Instituto Colombiano de Cultura, 1982.
- Jennings, Bruce H. *Foundations of International Agricultural Research: Science and Politics in Mexican Agriculture*. Boulder: Westview Press, 1988.
- Jimenez, Michael F. "Traveling Far in Grandfather's Car: The Life Cycle of Central Colombian Coffee Estates. The Case of Viotá, Cundinamarca, 1900-1930." *Hispanic American Historical Review* 69 (May 1989): 185-219.
- Johnston, Robert D. *The Radical Middle Class: Populist Democracy and the Question of Capitalism in Progressive Era Portland, Oregon*. Princeton: Princeton University Press, 2003.
- Joseph, Gilbert M., and Daniel Nugent, eds. *Everyday Forms of State Formation: Revolution and the Negotiation of Rule in Modern Mexico*. Durham: Duke University Press, 1994.
- Kalmanovitz, Salomón. *La inversión extranjera en la agro-industria colombiana*. Bogotá: Universidad Nacional de Colombia, Facultad de Ciencias Económicas, 1980.
- Kalmanovitz, Salomón, and Enrique López Enciso. *La agricultura colombiana en el siglo XX*. Bogotá: Fondo de Cultura Económica, 2006.
- Kersh, Rogan. "Rethinking Periodization? APD and the Macro-History of the United States." *Polity* 37 (October 2005): 513-522.
- Knight, Alan. "Patterns and Prescriptions in Mexican Historiography." *Bulletin of Latin American Research* 25 (July 2006): 340-366.
- Kraft, Alison. "Pragmatism, Patronage and Politics in English Biology: The Rise and Fall of Economic Biology, 1904-1920." *Journal of the History of Biology* 37 (Summer 2004): 213-258.

- Kreiger Vasena, Adalbert. "Comments on the Influence of Raúl Prebisch on Economic Policy-Making in Argentina, 1950-1962." *Latin American Research Review* 23, no. 2 (1988): 115-199.
- Ledesma-Mateos, Ismael, and Ana Barahona. "The Institutionalization of Biology in Mexico in the Early 20th Century. The Conflict between Alfonso Luís Herrera (1868-1945) and Isaac Ochoterena (1885-1950)." *Journal of the History of Biology* 36 (Summer 2003): 285-307.
- LeGrand, Catherine. *Frontier Expansion and Peasant Protest in Colombia, 1830-1936*. Albuquerque: University of New Mexico Press, 1986.
- Leppik, E.E. "The Life and Work of N.I. Vavilov." *Economic Botany* 23 (April-June 1969): 128-132.
- Lewis, Daniel. "Internal and External Convergence: The Collapse of Argentine Grain Farming." In *Latin America in the 1940s: War and Postwar Transitions*, edited by David Rock, 209-223. Berkeley: University of California Press, 1994.
- Lewis, Michael. "Indian Science for Indian Tigers?: Conservation Biology and the Question of Cultural Values." *Journal of the History of Biology* 38 (Summer 2005): 185-207.
- Llano Restrepo, Maria Clara. *La chicha, una bebida fermentada a traves de la historia*. Bogotá: CEREC, 1994.
- Lomnitz, Claudio. "Nationalism as a Practical System: Benedict Anderson's Theory of Nationalism from the Vantage Point of Spanish America." In *The Other Mirror: Grand Theory through the Lens of Latin America*, edited by Miguel Angel Centeno and Fernando López-Alves, 329-359. (Princeton: Princeton University Press, 2001).
- London, Christopher. "The Cultural Politics of Technical Change in Colombian Coffee Production." Unpublished Master's thesis, Cornell University, 1994.
- , "From Subordinates to Citizens: Development, Democracy, and Theory in Rural Colombia." Unpublished Ph.D. dissertation, Cornell University, Ithaca, NY, 2002.
- López-Pedrerros, Abel Ricardo. "A Beautiful Class, An Irresistible Democracy: The Historical Formation of the Middle Class in Bogotá, 1955-1965." Unpublished Ph.D. Dissertation, University of Maryland, 2008.
- Love, Joseph L. "Raúl Prebisch and the Origins of the Doctrine of Unequal Exchange." *Latin American Research Review* 15, no. 3 (1980): 45-72.
- Machado C., Absalón. *Políticas agrarias en Colombia, 1900-1960*. Bogotá: UNAL, Centro de Investigaciones para el Desarrollo, 1986.
- Mallon, Richard D. "The Influence of Raúl Prebisch on Economic Policy-Making in Argentina, 1950-1962: A Comment." *Latin American Research Review* 23, no. 2 (1988): 120-123.
- Matchett, Karin. "At Odds over Inbreeding: An Abandoned Attempt at Mexico/United States Collaboration to 'Improve' Mexican Corn, 1940-1950." *Journal of the History of Biology* 39 (Summer 2006): 345-372.

- Mayor Mora, Alberto. *Etica, trabajo y productividad en Antioquia*. Bogotá: TM Editores, 2005 (4th edition).
- Mazzuca, Sebastián, and James A. Robinson, "Political Conflict and Power Sharing in the Origins of Modern Colombia." *Hispanic American Historical Review* 89 (May 2009): 285-321.
- McCook, Stuart. "Promoting the 'Practical': Science and Agricultural Modernization in Puerto Rico and Colombia, 1920-1940." *Agricultural History* 75 (Winter 2001): 52-82.
- , "'Giving Plants a Civil Status': Scientific Representations of Nature and Nations in Costa Rica and Venezuela, 1885-1935." *The Americas* 58 (April 2002): 513-536.
- , *States of Nature: Science, Agriculture, and Environment in Spanish Caribbean, 1760-1940*. Austin: University of Texas Press, 2002.
- McGreevey, William Paul. *An Economic History of Colombia, 1845-1930*. Cambridge: Cambridge University Press, 1971.
- McGuinness, Aims. *Path of Empire: Panama and the California Gold Rush*. Ithaca: Cornell University Press, 2008.
- McKinnon, Katharine. "Postdevelopment, Professionalism, and the Politics of Participation." *Annals of the Association of American Geographers* 97 (December 2007): 772-785.
- Meissner, Daniel J. *Chinese Capitalists versus the American Flour Industry: Profit and Patriotism in International Trade*. Lewiston, NY: Edwin Mellen Press, 2005.
- Menard, Russell R. "Plantation Empire: How Sugar and Tobacco Planters Built their Industries and Raised an Empire." *Agricultural History* 81 (Summer 2007): 309-332.
- Mendel Cohen, Barry. "Nicolai Ivanovich Vavilov: The Explorer and Plant Collector." *Economic Botany* 45 (January-March 1991): 38-46.
- Mignolo, Walter D. *The Idea of Latin America*. Malden, MA: Blackwell Publishing, 2005.
- Miranda, Alvaro. *Colombia la senda dorada del trigo: episodios de molineros, pan y panaderos, 1800 a 1999*. Bogotá: Thomas de Quincey Editores Ltda., 2000.
- Mitchell, Timothy. *Rule of Experts: Egypt, Techno-Politics Modernity*. Berkeley: University of California Press, 2002.
- Montecinos, Veronica, and John Markoff. "From the Power of Economic Ideas to the Power of Economists." In *The Other Mirror: Grand Theory through the Lens of Latin America*, edited by Miguel Angel Centeno and Fernando López-Alves, 105-150. Princeton: Princeton University Press, 2001.
- Muñera, Alfonso. *Fronteras imaginadas: La construcción de las razas y de la geografía en el siglo XIX colombiano*. Bogotá: Editorial Planeta Colombiana, 2005.
- Murray, Pamela S. *Dreams of Development: Colombia's National School of Mines and its Engineers, 1887-1970*. Tuscaloosa: The University of Alabama Press, 1997.
- Nordin Dennis S., and Roy V. Scott. *From Prairie Farmer to Entrepreneur: The Transformation of Midwestern Agriculture*. Bloomington: Indiana University Press, 2005.

- Nugent, David. "Introduction." In *Locating Capitalism in Time and Space: Global Restructurings, Politics, and Identity*, edited by David Nugent, 1-59. Stanford: Stanford University Press, 1992.
- Ocampo, José Antonio. "Crisis mundial y cambio estructural (1929-1945)." In *Historia económica de Colombia*, edited by José Antonio Ocampo, 209-242. Bogotá: Siglo Veintiuno Editores, 1987.
- Ocampo, José Antonio, and Camilo Tovar. "Colombia in the Classical Era of 'Inward-Looking Development, 1930-1974.'" In *An Economic History of Twentieth Century Latin America, Vol. 3, Industrialization and the State in Latin America: The Postwar Years*, edited by Enrique Cárdenas, José Antonio Ocampo, and Rosemary Thorp, 239-281. New York: Palgrave, 2000.
- Olson, R.O. "Discussion: Impact and Implications of Foreign Surplus Disposal on Underdeveloped Economies." *Journal of Farm Economics* 42 (December 1960): 1042-1045.
- Oquist, Paul H. *Violence, Politics, and Conflict in Colombia*. New York: Academic Press, 1980.
- Orjuela, Luís Javier. "Tensión entre tradición y modernidad (1904-1945)." In *Historia de las ideas políticas en Colombia: De la Independencia hasta nuestros días*, edited by José Fernando Ocampo T., 181-219. Bogotá: Instituto Pensar, 2008.
- Ortiz Sarmiento, Carlos Miguel. *Estado y subversión en Colombia: La violencia en el Quindío años 50*. Bogotá: CIDER, 1986.
- Owensby, Brian. *Intimate Ironies: Modernity and the Making of Middle Class Lives in Brazil*. Stanford: Stanford University Press, 1999.
- Palacios, Marco. *Between Legitimacy and Violence: A History of Colombia, 1875-2002*. Durham: Duke University Press, 2006.
- , *El café en Colombia, 1850-1970: Una historia económica, social y política*. Bogotá: Editorial Planeta Colombiana, 2002, 3rd edition.
- , "La fragmentación regional de las clases dominantes en Colombia: Una perspectiva histórica." *Revista Mexicana de Sociología* 42 (October-December 1980): 1663-1689.
- Palacios, Marco, and Frank Safford. *Colombia: Fragmented Land, Divided Society*. New York: Oxford University Press, 2002.
- Parfitt, Trevor W., and Stephen P. Riley. *The African Debt Crisis*. New York: Routledge, 1989.
- Parsons, James. *Antioqueño Colonization in Western Colombia*. Berkeley: University of California Press, 1949.
- Patiño, Victor Manuel. "Historia de la tecnología agropecuario de Colombia." In *Apuntes para la historia de la ciencia en Colombia*, edited by Jaime Jaramillo Uribe. Bogotá: Colciencias/Fondo Colombiano de Investigaciones Científicas "Francisco José de Caldas," 1970.
- Pecaut, Daniel. *Orden y violencia: Evolución socio-política de Colombia entre 1930-1953*. Bogotá: Editorial Norma, 2001, 2nd edition.

- Perkins, John H. *Geopolitics and the Green Revolution: Wheat, Genes, and the Cold War*. New York: Oxford University Press, 1997.
- . "The Rockefeller Foundation and the Green Revolution, 1941-1956." *Agriculture and Human Values* 7 (Summer & Fall 1990): 6-18.
- Perry, Santiago. *La crisis agraria en Colombia, 1950-1980*. Bogotá: El Ancora Editores, 1985.
- Petrick, Gabriella M. "'Like Ribbons of Green and Gold': Industrializing Lettuce and the Quest for Quality in the Salinas Valley, 1920-1965." *Agricultural History* 80 (Summer 2006): 269-295.
- Pilcher, Jeffrey. *The Sausage Rebellion: Public Health, Private Enterprise, and Meat in Mexico City, 1890-1917*. Albuquerque: University of New Mexico Press, 2006.
- Pizano Salazar, Diego. *El café en la encrucijada: Evolución y perspectivas*. Bogotá: Alfaomega, 2001.
- Posada Carbo, Eduardo. "Progreso y estancamiento, 1850-1950." In *Historia económica y social del caribe colombiano*, edited by Adolfo Meisel Roca, 229-284. Bogotá: Ediciones Uninorte, 1994.
- . "Fiction as History: The Bananeras and Gabriel García Márquez's *One Hundred Years of Solitude*." *Journal of Latin American Studies* 30 (May 1998): 395-414.
- Poveda Ramos, Gabriel. "Políticas económicas, desarrollo industrial y tecnología en Colombia: 1925-1975." In *Ciencia y tecnología en Colombia*, edited by Fernando Chaparro & Francisco R. Sagasti, 409-456. Bogotá: Instituto Colombiano de Cultura, 1978.
- Prakash, Gyan. *Another Reason: Science and the Imagination of Modern India*. Princeton: Princeton University Press, 1999.
- Quintero, Camilo. "Trading in Birds: Imperial Power, National Pride, and the Place of Nature in U.S.-Colombia Relations." *Isis* 102 (September 2011): 421-445.
- Rendel, Matt. *Kings of the Mountains: How Colombia's Cycling Heroes Changed their Nation's History*. London: Aurum Press, 2002.
- Riguzzi, Paolo. "From Globalization to Revolution? The Porfirian Political Economy: an Essay on Issues and Interpretations." *Journal of Latin American Studies* 41 (May 2009): 347-368.
- Rocchi, Fernando. *Chimneys in the Desert: Industrialization in Argentina during the Export Boom Years, 1870-1930*. Stanford: Stanford University Press, 2006.
- Rothschild, Emma. *Economic Sentiments: Adam Smith, Condorcet, and the Enlightenment*. Cambridge, MA: Harvard University Press, 2001.
- Roldán, Mary. *Blood and Fire: La Violencia in Antioquia, Colombia, 1946-1953*. (Durham: Duke University Press, 2002).
- Sáenz Rovner, Eduardo. *Colombia años 50: Industriales, política y diplomacia*. Bogotá: UNAL, 2002.
- . *La ofensiva empresarial: Industriales, políticos y violencia en los años 40 en Colombia*. Bogotá: Centro de Estudios Sociales, UNAL, 2007.

- Safford, Frank. *The Ideal of the Practical: Colombia's Struggle to Form a Technical Elite*. Austin: University of Texas Press, 1976.
- Safford, Frank, and Marco Palacios. *Colombia: Fragmented Land, Divided Society*. New York: Oxford University Press, 2002.
- Sakamoto, Tatsuya, and Hideo Tanaka, eds. *The Rise of Political Economy in the Scottish Enlightenment*. London: Routledge, 2003.
- Sánchez, Gonzalo, and Donny Meertens. *Bandoleros, gamonales y campesinos: El caso de la Violencia en Colombia*. Bogotá: El Ancora, 1983.
- Saraiva, Tiago. "Fascist Labscapes: Geneticists, Wheat, and the Landscapes of Fascism in Italy and Portugal." *Historical Studies in the Natural Sciences* 40 (Fall 2010): 457-498.
- Schultz, Theodore W. "Value of U.S. Farm Surpluses to Underdeveloped Countries." *Journal of Farm Economics* 421 (December 1960): 1019-1030.
- Schwartz, Hugh. "Raúl Prebisch and Argentine Economic Policy-Making, 1950-1962: A Comment." *Latin American Research Review*, Vol. 23, No. 2 (1988), 124-127.
- Shen, Grace. "Murky Waters: Thoughts on Desire, Utility, and the 'Sea of Modern Science.'" *Isis* 98 (September 2007): 584-596.
- Shepherd, Chris. J. "From in vitro de in Situ: On the Precarious Extension of Agricultural Science in the Indigenous 'Third World.'" *Social Studies of Science* 36 (June 2006): 399-426.
- Scobie, James R. *Revolution on the Pampas: A Social History of Argentine Wheat, 1860-1910*. Austin: University of Texas Press, 1964.
- Scott, James C. *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven: Yale University Press, 1976.
- . *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press, 1998.
- Sewell, Jr., William H. "A Strange Career: The Historical Study of Economic Life." *History and Theory* 49 (December 2010): 146-166.
- Shiue, Carol H. "The Political Economy of Famine Relief in China, 1740-1820." *The Journal of Interdisciplinary History* 36 (Summer 2005): 35-55.
- Sinkink, Kathryn. "The Influence of Raúl Prebisch on Economic Policy-Making in Argentina, 1950-1962." *Latin American Research Review* 23, no. 2 (1988): 91-114.
- . "The Influence of Raúl Prebisch on Economic Policy-Making in Argentina, 1950-1962: Response." *Latin American Research Review* 23, no. 2 (1988): 128-131.
- Silva, Renán. *República Liberal, intelectuales, y cultura popular*. Medellín: La Carreta Editores, 2005.
- Solbert, Carl E. *The Prairies and the Pampas: Agrarian Policy in Canada and Argentina, 1880-1930*. Stanford: Stanford University Press, 1987.
- Soluri, John. *Banana Cultures: Agriculture, Consumption, and Environmental Change in Honduras and the United States*. Austin: University of Texas Press, 2005.
- Sowell, David. *The Early Colombian Labor Movement: Artisans and Politics in Bogotá, 1832-1919*. Philadelphia: Temple University Press, 1992.

- Stoller, Richard. "Alfonso López Pumarejo and Liberal Radicalism in 1930s Colombia." *Journal of Latin American Studies* 27 (May 1995): 367-397.
- Tally, Rebecca. "A Young and Dynamic Country: Soil Science and Conservation in Colombia, circa 1950." Presentation at the New York State Latin American History Workshop, Cornell University, Ithaca, New York, October 15, 2006.
- Thompson, E.P. *Customs in Common: Studies in Traditional Popular Culture*. New York: The New Press, 1993.
- Thorp, Rosemary. *Progress, Poverty, and Exclusion: An Economic History of Latin America in the 20th Century*. Washington: Inter-American Development Bank, 1998.
- Thorp, Rosemary & Carlos Londoño. "The Effects of the Great Depression on the Economies of Peru and Colombia." In *An Economic History of Twentieth-Century Latin America, Volume 2, Latin America in the 1930s: The Role of the Periphery in World Crisis*, edited by Rosemary Thorp, 71-102. New York: Palgrave, 2000.
- Thorp, Rosemary, and Laurence Whitehead, eds. *Latin American Debt and the Adjustment Crisis*. Pittsburgh: University of Pittsburgh Press, 1987.
- Tirado Mejía, Alvaro. *Aspectos políticos del primer gobierno de Alfonso López Pumarejo (1934-1938)*. Bogotá: Planeta Colombiana Editorial, 1995, 2nd edition.
- Torres Giraldo, Ignacio. *Maria Cano: Mujer rebelde*. Bogotá: Editorial La Rosca, 1972.
- Trujillo Peralta, Enrique Omar, Edgar Torres Castro, and Juan Fernando Conde Libreros. *El trigo en la época colonial: técnica agrícola, producción, molinos y comercio*. Cali: Universidad de San Buenaventura & Federación Nacional de Molineros de Trigo (FEDEMOL), 1990.
- Uribe de Hincapié, Maria Teresa, and Jesús Maria Alvarez. *Podere y regiones: Problemas en la constitución de la nación colombiana, 1810-1850*. Medellín: Centro de Investigaciones de las Ciencias Sociales, Universidad de Antioquia, 1987.
- Urrego, Miguel Angel. *Intelectuales, estado y nación en Colombia: De la guerra de los Mil Días a la constitución de 1991*. Bogotá: Siglo del Hombre Editores, 2002.
- Vallejo, Jorge Angel. *100 años de Bavaria: Una historia de la industria cervecera de Colombia*. Medellín: Editorial Lealon, 1990.
- Vega Cantor, Renán. *Gente muy rebelde: Protesta popular y modernización capitalista en Colombia (1909-1929), Vols. 1-4*. Bogotá: Ediciones Pensamiento Crítico, 2002.
- Vélez M., Hugo E. "Difusión de la producción mercantil y de la tecnificación en la agricultura colombiana." In *La agricultura colombiana en el siglo XX*, edited by Mario Arrubla, 269-346. Bogotá: Editorial Andes/Instituto Colombiano de Cultura, 1976.
- Warner Mettler, Meghan. "Gimcracks, Dollar Blouses, and Transistors: American Reactions to Imported Japanese Products, 1945-1964." *Pacific Historical Review* 79 (May 2010): 202-230.
- Weiner, Richard. "Competing Market Discourses in Porfirian Mexico." *Latin American Perspectives* 26 (January 1999): 44-64.
- . *Race, Nation, and Market: Economic Culture in Porfirian Mexico*. Tucson: University of Arizona Press, 2004.

- Weinsten, Barbara. *For Social Peace in Brazil: The Remaking of the Working Class in São Paulo, 1920-1964*. Chapel Hill: The University of North Carolina Press, 1996.
- , "Developing Inequality." *American Historical Review* 113 (February 2008): 1-18.
- Wilde, Alexander W. "Conversations among Gentlemen: Oligarchical Democracy in Colombia." In *The Breakdown of Democratic Regimes*, edited by Juan J. Linz and Alfred Stepan, 28-81. Baltimore: John Hopkins University Press, 1978.
- Wilton Appel, John. "Francisco José de Caldas: A Scientist at Work in Nueva Granada." *Transactions of the American Philosophical Society* 84, No. 5 (1994): 1-154.
- Wise, Michael. "Colonial Beef and the Blackfeet Reservation Slaughterhouse, 1879-1895." *Radical History Review* 2011 (Spring 2011): 59-82.
- Yeh, Emily T. "Tropes of Indolence and the Cultural Politics of Development in Lhasa, Tibet." *Annals of the Association of American Geographers* 97 (September 2007): 593-612.
- Zamosc, Leon. *The Agrarian Question and the Peasant Movement in Colombia: Struggles of the National Peasant Association, 1967-1981*. Cambridge: Cambridge University Press, 1986.