Consumer Perspective

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I will describe the international regulatory situation as well as the public attitudes in several regions of the world (Europe, Japan, Australia, and North America). I will introduce a selection of results from North American surveys describing the public attitude environment, and I will then provide a brief synopsis of the NABC environment that has developed over the past decade. I will also attempt to draw some consistent threads among these challenged environments and offer some suggestions for where we go from here.

I will cover the complex and rapidly changing regulatory and government policy environment related to food biotechnology because regulatory policy in the developed world tends to reflect the moral, ethical and cultural sentiments of the voting public. I emphasize , however, that these are my personal interpretations of this rapidly changing environment, not to be confused with official government position statements.

Simply put, Europe is in a state of chaos. It has a large and ever-rising backlog of approval submissions that are not being adequately addressed. One of the complications is a dual approval system which governs product approvals by the European Commission, as well as the individual member state regulatory agencies. Product approval through this multilayered system is more onerous than equivalent approvals in other developed nations.

The European Union (EU) has a strong and well-coordinated antibiotechnology lobby led by Green Peace, which has attempted several highly publicized blockades of transgenic grain shipments at European ports. This lobby group has primarily focused on the controversial area of food labeling. A difference of opinion exists among EU member states related to labeling requirements. While the European Commission has stated that labeling is required only for health, safety, and nutrition, some states are considering

mandatory labeling for all genetically engineered products, in part to erect nontariff barriers to trade but also to reflect the vigorous negative public sentiment. The application of these labeling policies to real-life situations may prove to be extremely complicated. The controversy has also moved into the retail market, and some outlets (Britain) are suggesting that they will not carry genetically engineered foods without mandatory labeling. The European Commission is providing U.S. $1.25 million over three years to advance public awareness and understanding of biotechnology across Europe, but this has not yet proven to be very successful because there are a wide variety of information needs and a relatively small amount of available funding.

Japan has recently put into place a regulatory framework to deal with biotechnology-derived foods. It has approved 19 products through this system and several more are expected over the next few months. Japan has also made a commitment to public awareness by establishing the Plant Biotechnology Information Centre, which provides information to the media and consumers, as well as offering seminars and a listing of product approvals around the world. There is little coordinated antibiotechnology effort in Japan. Japanese consumers appear to embrace the products of biotechnology more readily than do Europeans, but it is difficult to judge consumer buying sentiments because the regulatory system is very new and, though the products have been approved, transgenic foods have not yet reached store shelves.

In Australia, biotechnology has always had a high level of support from the federal government. In fact, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the major government research group in Australia, continues to drive much of the research agenda in that country. As is sometimes the case in Canada, the Australian federal and state governments do not always agree on issues. Biotechnology is no exception. There is no clear mandate at the federal or state levels for regulatory oversight. As a result, an informal regulatory system is being implemented without the requisite statutory authority for enforcement. The Genetic Manipulation Advisory Committee forms the backbone of this system, providing guidance on issues of health and environmental safety. The Australian Food Authority approves new food products and is now considering how to deal with biotechnology. Labeling guidelines were recently released for comment by both Australia and New Zealand, suggesting food labeling for health and safety or compositional or nutritional change. A more controversial issue is the suggestion that products that may contain more than five percent transgenic components also be labeled. How such a requirement will be interpreted for commercial products has yet to be determined. Most of the population appears to support the use of biotechnology, including its use for food products. The antibiotechnology lobby is not well organized and has not yet achieved much success. Equally important is the poor coordination of the industrial community, placing the industry in jeopardy if public sentiment begins to change.

North America is in an enviable position with a relatively stable regulatory environment and the lion's share of global product approvals. Both Canada and the United States have similar health, safety, and environmental regulatory oversight. Canada, however, requires pre-market notification for novel food products (including those produced with biotechnology) while the United States regulates foods after they have reached the market. The U.S. approval system for some biotechnology products (those similar to previously approved products) is being streamlined to reduce the regulatory burden and accelerate product approvals based on extensive experience with these products. Food labeling issues are being negotiated through the international food standards organization Codex Alimentarius. In both Canada and the United States, an interim labeling policy is in effect, requiring labeling when there is a health or safety issue or when there is a nutritional or compositional change. Interestingly, the antibiotechnology lobby has not been as successful in North America as in Europe, but there are a few outspoken individuals and the movement is becoming better organized. These groups provide a reality check on our progress. While North America has some positive influences, it is appropriate that we remain aware of these outspoken critics and their impact on public attitudes.

To better understand public attitudes, I thought it would be useful to review the findings of a selection of studies and public opinion polls carried out in North America. While polls are useful in providing information on attitudes, they are often biased by the style and content of questions, and they are poor at providing reliable statistics on the final consumer product purchase decision. Purchase decisions are based on a wide variety of criteria that differ from consumer to consumer.

As the bovine somatotropin (BST) issue was in full swing in the United States in 1994, a Task Force Report was developed to identify consumer reaction to rBST. There was a loud and highly publicized outcry from a variety of sources during the first few months of commercial release. This debate has continued in some regions of the United Sttaes and small pockets of resistance are being established in Vermont, Wisconsin, Maine, and a few other states. But despite this outcry, the Task Force Report noted a slight increase in national milk consumption. Labeling was embraced as the critical issue in these few regions and continues to be debated in some state legislatures. rBST has not yet received regulatory approval in Canada.

Thomas Hoban of North Carolina State University has developed a series of public opinion polls since 1993. His major findings show that the U.S. public was relatively unaware of biotechnology. Biotechnology products for health care and agricultural plant applications appeared to have strong support. Trust and credibility of information sources was also covered, and the results indicate that the members of NABC rank well in both categories.

The Decima and Optima studies carried out in 1993 and 1994 showed that Canadians, too, were generally unfamiliar with biotechnology but that we are a cautiously optimistic lot. Labeling of genetically engineered foods was strongly supported in these and most other consumer polls done around the world. Here again, the trust and credibility questions pointed to NABC members as holding a lofty position in both categories.

A Canadian Angus Reid poll showed a slight increase in awareness, indicating that the majority had heard of biotechnology by June 1995 but few understood it. The results, consistent with other polls, showed that most supported applications in plants, but there was less support for applications in animals. As well, female respondents appeared more concerned than their male counterparts.

The Trends survey, conducted by the Canadian Council of Grocery Distributors in 1995, showed that the awareness of biotechnology-derived foods was similar in both Canada and the United States, with U.S. consumers a little better informed. Even so, more than half the respondents had heard nothing or only a little about the topic. Half would purchase a biotechnology-derived product that had improved taste, and three-quarters would purchase a biotechnology-derived food product that had been developed for insect resistance. This survey also placed the views of Canadians toward their food into context. Their primary concerns were safety, nutrition, quality, and taste.

We are now undertaking a survey of public attitudes in Canada, the United States, and Europe using the same questionnaire, carried out in the same time frame. The results should help us compare attitudes in these regions and determine if attitudes have shifted, now that food products are on the grocery shelf.

I have given you a flavor of the regulatory situation in several nations, as well as a brief look at the public attitudes in North America. So, what do we (the NABC) do with this information, and where do we go from here? To begin answering these questions, I thought it might be useful to provide a snapshot of what the NABC meetings have accomplished to date. I am taking only a selection of results and have interpreted them in my own words. I suppose that the traditional disclaimer that these are the opinions of the speaker, not the NABC management, is in order.

NABC 1, held in 1989, recommended that more discussion with the public on research directions was in order. It also suggested that public education programs be established, as well as mechanisms for the public to offer input into decision making.

NABC 2 followed on this theme, recommending that consumers be empowered to participate in product development, that public debate on labeling issues be initiated, and that teaching materials be developed.

NABC 3 and 4 supported public discussion and dialogue, suggesting multiparty involvement in the funding allocation process.

NABC 5 and 6 recommended focusing on the early education system (K-12) and developing a public education plan.

NABC 7 and 8 suggested that we lead public discussion, focus on differentiated audiences, and develop materials to raise awareness.

There are some obvious common themes among these results. As is true of many other groups that provide recommendations, there was a recognition that we did not have enough information and more research was required. Perhaps there is some truth here, but it is somewhat self-serving as well. The call for more communication was consistent, as was the focus on the education system. Yet, each and every attempt to deal with the communication issues has resulted in interminable discussion. We have been consistently short on deliverables. We have left the action items to others while professing to be intimately involved in the process. There has been no follow-up on the recommendations, no coordinated effort to effect change, and precious little leadership from a group that holds high levels of both public trust and credibility.

So, where do we go from here? Products of biotechnology are in the stores; they are on our dinner plates. The products of biotechnology are now a reality and consumers continue to be poorly informed at best, possibly even unaware. It is our combined responsibility to make them aware. It is our combined responsibility to get the message of food biotechnology out. It is our combined responsibility to take the leadership position in this communications challenge.

Having been involved in the public information game since the late 1980s, I am increasingly frustrated with those who remain focused solely on the collection of information and the academic study of issues. I think it is interesting to consider the hundreds of thousands of dollars that this group alone has spent during the past decade, going to these meetings to discuss the issues and to make recommendations on communication with the public. I suppose it is appropriate, considering the audience, to ask, Where is the beef? It is time that we move beyond the abstract to the practical by building on the knowledge we have gained and applying it to concrete communication activities. We must close the ever-widening information gap that exists between science and the consuming public.

To initiate this shift in our actions, we can jointly compile a list of activities that involve the public and the educational system. We can combine the efforts of individual organizations into coordinated programs. We can identify gaps where our activities have had little impact and develop new activities to address those gaps. And finally, we can assign both human and financial resources to support these activities. We have not yet been effective in influencing public awareness, either on a community or an individual level. Perhaps it is time to change the focus of this group to meet the challenged environment of low public awareness. One Canadian organization attempting to address this gap is the Food Biotechnology Communication Network (FBCN), which represents consumer, farm, industry, and government organizations and provides

information on food biotechnology. Two activities which the Canadian biotechnology community (including FBCN) are now developing are a communication strategy and an issues/crisis management plan. These activities identify and assign both responsibilities and resources. The NABC has an opportunity to undertake a similar role, but this will require significant change.

One scenario which I propose to implement such a change comes in four phases: First, we form a group to develop a communications strategy with input from the NABC members (possibly in conjunction with the FBCN), including stated objectives, target audiences, key messages and messengers, and activities that are targeted and timely. In phase two, we each identify how our own organization will become involved in meeting the deliverables outlined in the strategy and make this known to the NABC and other members. Then, we jointly initiate the strategy and the activities that we have identified. Finally, the NABC monitors the activities and, together, we evaluate our progress at each future NABC meeting, offering a reality check on progress made. This action plan would move us from talking among ourselves at each of these annual NABC meetings to instituting real change in public attitudes.

Today we have looked at the international regulatory environment. We have touched on the public attitudes environment, and we have reviewed the self-proscribed challenges in the NABC environment over the past decade. Continued chat among interested stakeholders is no longer suitable. For ten years, we have been hesitant to take up the gauntlet and face our most challenging environment, public awareness. We have an opportunity, over the next two days, to institute a process that will form an action plan and finally begin the implementation process. For once, let's meet this challenge head-on. Let's coordinate our efforts and effect real change.

BIOTECanada has created an overview of the Canadian communication activities entitled: About Biotechnology: The Communications Experience. Copies are available via E-mail at cib@biotech.ca