

FINGER LAKES

Vineyard Notes



Cornell University
Cooperative Extension

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Grapes and Wine in Brazil

Hans Walter-Peterson

This past September, I was invited to Brazil to speak at the XII Congress of Brazilian Viticulture and Enology, which was organized by Embrapa, the country's agricultural research arm (similar to the USDA's ARS in the States). You might remember that I had a blog where I wrote about this trip, but due to the timing, which fell in the middle of harvest, I know that many people did not have the chance to read it. This article, then, is a summary of most of those blog entries, along with a couple of new topics that I did not get to write about before returning to the US. If you want, you can still read my blog, which has more on some of the wines I tasted and people I met along the way. The blog's address is <http://blogs.cornell.edu/grapesinbrazil/>.

XII Congress of Brazilian Viticulture and Enology

The conference, which is held every 3-4 years, is primarily a technical conference for researchers and graduate students, but a number of growers and winemakers attended as well. I was invited to speak as part of a panel discussing the roles of wines from American, hybrid and vinifera varieties. The organizers wanted to hear about another industry that has had a good experience producing wines from all three categories of grapes, which they do down there. There is some conflict within the industry right now among those who think that Brazil needs to move towards producing primarily "fine wines" from vinifera varieties (legally, 'fine wines' can only contain vinifera varieties), while others still believe that the more traditional American and hybrid varieties need to continue to have a role in the industry.

The other two talks on the panel were given by Adriano Miolo, whose family owns a large and beautiful winery called Vinhos Miolo, and Claudio Jose de Goes, who owns a company that is primarily involved in marketing and sales, rather than production. Mr. Miolo spoke about the importance of vinifera varieties and discussed why Brazil needs to continue to pursue better quality wines using these varieties (I was able to follow the other talks thanks to the translator who was there to translate my talk into Portuguese). Mr. Goes' main point was that Brazil still is primarily a beer and spirits consuming country, and that wines made from American and hybrid varieties are much easier for those new to drinking wine (they are sweeter and cheaper) than are dry, vinifera-based wines. This sounded like a pretty similar to what many wineries in New York seem to find as well - that new wine drinkers often start with lower priced and/or sweeter wines, and hopefully "move up" to drier and higher-priced wines.

This will be the final hard copy of the Vineyard Notes newsletter that will be delivered to everyone who is enrolled in the Finger Lakes Grape Program. Beginning in 2009, the newsletter will be published and distributed electronically in .pdf format, in order to help save on printing and mailing costs. If you want to continue to receive a paper copy of the newsletter, there is now an additional fee to help cover those costs. See your 2009 enrollment form for more information.

From all of us with the Finger Lakes Grape Program, we thank you for your support over the past year, and wish you, your families and friends a very happy holiday season.

Best Wishes,

Hans Walter-Peterson Bill Wilsey
Linda Davis Jamie Hawk



Major Cities of Brazil. Most grapes are grown in the southern end of the country, west of Porto Alegre.

Overview of the Industry

In some ways, the Brazilian grape industry is similar to the industry in New York, particularly in the Finger Lakes. The majority of the acreage - a higher percentage than in NY - is in American varieties used for juice production. The most widely planted variety is Isabella, followed by Concord, and these are used both for juice and wine. Another variety that is used down here, primarily for juice, is called Bordó (pronounced like Bordeaux), but we know as Ives. Overall, about 80% of the acreage in Brazil is American and hybrid varieties, with the other 20% is vinifera.

The production of grape juice is a very important part of the industry here. So important, in fact, that Embrapa is breeding new varieties for juice production. As I mentioned, Isabella and Concord are the primary varieties used for juice, but there are some newer varieties as well. Dr. Umberto Almeida Camargo has been a grape breeder down here for many years, and he described a number of new varieties that Embrapa is testing or has recently released that are intended for the juice industry (discussed below). Embrapa has also evaluated and isolated clones of Isabella and Concord, including a clone of Concord called Clone 30, which ripens about 2 weeks earlier than standard Concord. There is some interest among scientists at Cornell and USDA to import some of these materials for evaluation here in New York, both viticulturally and from a marketing standpoint.

The country is still in the ‘what varieties do best where?’ phase of its existence when it comes to vinifera varieties. The largest grape growing region in the country is located around the city of Bento Goncalves, and is beginning to develop a reputation for production of Chardonnay and Pinot Noir for sparkling wines. Other areas of the country are

warmer and so are working with Cabernet Sauvignon, Merlot, Syrah, Tannat, Tempranillo, Chenin Blanc, Verdelho, and several other warmer climate varieties. Personally, I hate to see Chenin Blanc on that list because it suggests to me that perhaps they are looking at the Central Valley of California as a model for this variety, where it is used for high production, bulk wines, instead of having it in a somewhat cooler area where it can produce some really lovely, elegant wines.

Currently, however, there is actually an oversupply of vinifera varieties in the major wine producing areas in the south. While a few wineries are planting new vinifera vineyards, more growers are taking those varieties out and replanting with hybrid or American varieties, including some new ones developed by Embrapa. This past harvest, growers were sending some red wine varieties like Cabernet Sauvignon and Merlot to the juice processors in their shipments. Like in New York, the price for juice grapes is about \$200/ton (R\$0.40/kg), so selling wine grapes for this price (even there) is not a good deal for the growers. Many here believe that this is just another part of a cycle, where the price for vinifera goes down and growers remove those varieties, causing a shortage and a concomitant price increase, followed by replanting of those varieties. Time will tell, of course.

Grape Growing in Brazil

According to my hosts at Embrapa, the average size of a vineyard in Brazil is about 2 hectares, or about 5 acres. In comparison, the average vineyard size in New York, according to the 2006 survey, is about 13.6 hectares, or 33.5 acres. All vinifera varieties are grafted onto rootstocks, and some American and hybrid vineyards are as well. The vast majority of vineyards are grafted onto 1103 Paulsen because, in addition to phylloxera resistance, it is also resistant (or tolerant?) of Fusarium, which is a fungus that is endemic in most of the vineyard soils here.



Isabella vines trained on a pergola trellis. Sycamore trunks are used as endposts.

Most of the grapes in Brazil, including many vinifera varieties, are trained on a pergola, or overhead, trellis. This is the traditional trellis that has been used here since grapes have been planted, and was brought over by Italian immigrants who settled in this region before World War II. The vines are trained with anywhere from 2-4 cordons, and then a few canes are trained out from those and tied to the closest wire

to the cordon, or the cordons are spur pruned. The wires are at about 2 meters, so it isn't that much higher than the high-wire cordon system that is used for most American and hybrid training systems in New York. The overhead wires are



Pruning work was just finishing up in late September. Vines are generally pruned to 3-4 cordons or canes each.

basically there to "catch" the shoots as they grow from the spurs or canes. Shoots that begin to grow from a downward position are either pushed up onto the wires or, more often, just thinned off by hand. The weight of the shoots drops them down onto the wires which keep them "positioned" overhead. The clusters then hang down away from the leaves.

This would give the clusters good exposure for sprays, but excessive leaves above would promote shading, and possibly retain moisture from the ground and prevent more rapid evaporation of soil moisture. All practices are done by hand, including harvest. While I think there can be some viticultural advantages to this system sometimes, working it would be very difficult. As I mentioned, some newer plantings of vinifera are being trained with VSP trellising, which is encouraging to see, but this is still somewhat limited.

On average, growers of labrusca varieties spray *10 times* per year, while in some years vinifera growers have to spray *20 times* in a season. My question was (and I didn't get a chance to ask this), is that because the disease pressure is inherently higher here because of more rain during the growing season, or as a result of the pergola trellis system which might be creating a more humid environment underneath the canopy? Or is there just an underlying assumption that you need to apply that many sprays? How you make money spraying that often for a crop that pays \$200/ton, even with inexpensive labor, is puzzling to me.

Probably the most mind-blowing part of what I learned while I was there was about viticulture in the Vale de São Francisco, which is in the northern part of the country where it is very hot and dry. Because it is so warm there, growers have to force the grapes into dormancy by withholding irrigation and applying hormones to the vines. Otherwise, the grapes would just keep on growing. When the grower wants to bring the grapes out of dormancy after pruning, he applies another plant hormone. By doing this, growers in that region are able to harvest *two crops* in each calendar year.

On average, growers of labrusca varieties spray 10 times per year, while in some years vinifera growers have to spray 20 times in a season.

And by staggering the implementation of these practices over several blocks, a grower can have grapes to harvest for most of the year.



Sparkling wine is becoming a major product for wineries in the 'Vale de Vinhedos' or "valley of vineyards" near Bento Gonçalves.

Wines in Brazil

Brazil has two categories of wines - 'vinho fino' or "fine wines", which by law can only be made from vinifera varieties, and 'vinho de mesa' or "table wines" (often called common wines), which are partially or completely based on American or hybrid varieties. These wines are generally made from American varieties including Isabella, Ives, sometimes Concord, and Niagara (yes, the same one). A small amount of Seyval is grown there also, along with a couple

of hybrids developed by the breeders Couderc (who is the 'C' in the rootstock '3309C') and Seibel.

As far as vinifera wines go, the area around Bento Gonçalves called the 'Vale de Vinhedos' or "valley of vineyards", is gaining a reputation as the best place for sparkling wine production in the country, and good all around wine production as well. New vineyards are being planted by wineries with Chardonnay and Pinot Noir for sparkling production, using VSP trellises as opposed to the traditional (and much more common) pergola system. Other regions in southern Brazil, with warmer climates, are working with varieties that tend to do better in warmer climates, including Viognier, Merlot, Cabernet Franc, Cabernet Sauvignon, Tannat, Syrah, Tempranillo and Touriga Nacional.

Vinicola Miolo. When you drive into this winery, you could almost think you're in the Napa Valley. The buildings are very grand looking, with the largest building containing the winery, and two other buildings that house the visitor center and administration. The family has been growing grapes in the region for several decades, but the winery was started about 25 years ago. Miolo is generally given credit for being a leader in the movement to improve the quality of wines in Brazil, and that continues to be part of their

business strategy.

Cave de Geisse. This winery is regarded by most to be the best producer of sparkling wines in Brazil. We visited their estate vineyards (Chardonnay and Pinot Noir) which are between 2-7 years old, and are all trained to VSP. They also grow Cabernet Sauvignon and a little bit of Riesling, which we did not



Entry to Vinicola Miolo

get to see or taste. The winery has a small restaurant and inn as well to attract tourists. We tried four different sparkling wines during the visit - two brut, and two brut rose. The two rose wines were very interesting to taste, with one being from 2003 and the other from 2006. The 2003 was more of a salmon color with primarily fruit flavors but some nice complexity that the winemaker said had developed over the last couple of years. The 2006 version was bright pink, and very straightforward fruity - think tart liquid strawberry with bubbles. The winemaker said that the 2006 was not released yet, waiting for it to develop some more. Still wines are made under the label Cave de Amadeu.

Salton. Think of Salton like you might think of Gallo, in the sense that wine production is very industrialized here. They have 6 lines to accept grapes at one time during harvest, and will process approximately 20,000-25,000 tons of grapes each year. The facility we visited was built in 2000, after the company had spent most of its existence within the city of Bento Goncalves, so the facility and the equipment is all very modern. The company even blasted 8 meters into the bedrock to construct its barrel storage and some bottle storage, where the temperatures stay cool year round. Salton produces both fine wines (vinifera) and table wines (non-vinifera). We did not get to taste any of their wines during our visit, but I have been told that some of their vinifera wines have very good reputations in the country.



Salton is a large, industrial-scale winery in Bento Goncalves. Note the multiple rotary fermenters in the bottom left of the photo.

Wine tourism is still developing in Brazil, and is somewhat of a recent phenomenon. Many people were surprised to hear me mention during my talk that over 4 million tourists visit New York wineries each year (maybe less

this year), while the industry here just recently celebrated going over 120,000 visitors to all of their wineries. I told them that 4 million visitors do not appear overnight, and that the industry and many others have worked hard to generate that kind of traffic. All three facilities we visited have facilities to host events and for guests to come and taste, dine and even stay overnight on the grounds (in Cave de Geisse's case).

Grape Juice

In Brazil, you get the impression that grape juice is considered to be just as important of a product as wine is, and it is treated similarly in some ways. The main varieties used in grape juice production here are Isabella, Concord (considered the standard for flavor profile) and Ives (mainly used for dark color). In addition to a few very large producers of juice and concentrate, there are a number of smaller companies, and even wineries, that make their own juices using different blends of varieties, similar to a winery making different blends of wine.

Embrapa has been working on developing new varieties for grape juice production over the past couple of decades or so, and some of these varieties are also being used for juice production. Two of them are called 'BRS Rubea' and 'BRS Violeta', and were developed by Dr. Camargo. Both were bred to improve both tonnage and quality of fruit over the more traditional varieties, particularly Isabella. 'Rubea' is a variety with higher productivity, Brix and color compared to Isabella. 'Violeta' produces grapes that contain about twice the amount of anti-oxidant compounds of Concord, and is a key element in the country's desire to try to heighten the 'neutraceutical' aspects of grape juice consumption. Both of these varieties were released within the past 10 years, and are starting to make their way into the industry.

I visited a couple of different grape juice producers, who operated in very different segments of the grape juice market in Brazil.

Casa de Madeira. This (relatively) small company (~1,000,000 L produced per year) makes grape juice, jam, balsamic vinegar (from Cabernet Sauvignon and Merlot), and grappa at their own plant. What I noticed right away was just how much this company was marketing itself like a winery. They had a very nice tasting room where you could try their products. They sell their juice, which is blend of Isabella, Ives and Concord, in 3L bag-in-a-box, 500 mL bottle, and two smaller 'single serve' sizes. The flavor is really quite nice, but it does not taste the same as the Concord juices I am used to drinking (less acid seems to be the main difference that I can taste). Not bad flavors, just different. They also have a restaurant on site, and attract a number of visitors who are driving along the road through the Vale de Vinhedos visiting nearby wineries. In addition to sales at their own facility, they sell their products through



Tasting room at Casa de Madeira.

restaurants, and some supermarkets as well.

Tecnovin. If Casa de Maderia was a “boutique” juice producer, Tecnovin is anything but. Tecnovin is all about bulk concentrate and shipping it all over the world. They process about 100,000 tons of grapes every year, most of which is Isabella and Concord. They also produce apple, orange and lemon concentrates as well. Most of their product is shipped overseas in 200L plastic-lined barrels. The processing seemed pretty similar to juice plants in the U.S. They purchase grapes from about 2,000 different family farms in Brazil. They are planning on increasing their production over the next several years.

As I’ve mentioned, Brazil is pretty serious about grape juice, both as a commodity and as a product for their own people to consume. They still, however, have the same struggles as we do in the U.S. about competition from soft drinks and bottled water. But I would venture to guess that their per capita consumption (maybe total consumption) of grape juice is higher than in the U.S. But what if we were able to start incorporating a grape like ‘Violeta’, and even further increased anti-oxidant levels in our products from the U.S.? Would that add some further value to our existing products, or perhaps even lead to the development of new ones?

National Evaluation

One of the highlights of the trip was getting invited to attend the National Evaluation, a gigantic wine tasting event which is held annually and organized by Embrapa. This event is held to highlight the best ‘fine wines’ (i.e., *vinifera*-based wines) of the most recent vintage. The event is held in two locations each year – at the conference center in Bento Gonçalves, and one other location somewhere else in the country. The two sites are linked by video conferencing. At this year’s event, there were about 600-700 people at Bento Gonçalves and another 300 or so at the other location.

The wines poured for the evaluation are selected by a few

different panels that are organized by Embrapa. The first panel (or set of panels) culls through hundreds or even thousands of wine samples to determine the “finalists”, which are then moved along to a second panel that chooses the best 16 samples to be poured at the event. The samples this year included a couple of sparkling wine bases, an Italian Riesling, two Muscats, Pinot Noir, Cabernet Franc, Tannat and Ancellotta. As each wine was tasted, we scored them individually and then a member from the tasting panel discussed their impressions of each wine.

Overall, I was very impressed with the quality of most of the wines, particularly the reds. It was very interesting to taste a Brazilian Cabernet Franc, which was very full bodied with deep flavors and color, and to mentally contrast it with our versions of it, which tend to be lighter. The flavors of the Riesling Italic were *very* different from what I am used to when I think of Riesling. To me, it tasted closer to a Chardonnay than a Riesling, with more apple and melon types of flavors than citrus or tropical, along with some mild but noticeable oak. Like I said, *very* different from what I am used to.

Tasting NY Wines in Brazil

One of the last things I did before leaving Brazil was lead a tasting of four different NY wines that I brought down with me. The tasting was done for some of the viticulturists and enologists from Embrapa, along with some local industry members as well. The four wines I poured for them were:

- Lakewood 2007 Dry Riesling
- Swedish Hill 2007 Vidal Blanc
- Bedell Cellars 2005 Musée
- Hazlitt 1852 Red Cat



Leading a tasting of NY wines with one of Embrapa’s research enologists on my last day in Brazil. About 25 researchers and winemakers attended the tasting.

I chose these wines as examples of the broad range of wine styles that we produce in New York, which was the reason

that I was asked to come down there in the first place. I also want to thank these wineries for providing the wines for me to bring down there.

I was told that Brazilians are generally used to wines with lower acidity levels (except for sparkling, of course), and as a result the Dry Riesling was almost too acidic for many of the tasters. The Vidal Blanc was much more along the lines of what they are used to, and were very impressed with the quality of wine produced from a hybrid variety (I also mentioned that this wine won the Governor's Cup this year). And while it wasn't true of everyone in the room, a couple of tasters even commented that the Musée had slightly higher acidity than they preferred, which I found interesting. However, they all agreed that it was a very good wine. And while they do not grow Catawba in Brazil (at least that I heard of), they all found the character of Red Cat to be very similar in some ways to their 'table wines' (produced from non-vinifera varieties) which are very popular down there. A couple of people even mentioned that it might even sell well in Brazil (hmmm...).

The trip was a wonderful opportunity to see and learn about an industry that is one of the closest comparisons to our own anywhere else in the world. I will be working with others here at Cornell and with the USDA on the possibility of importing a couple of the new juice varieties that I saw down there to see if they might hold some potential to help our grape juice industry down the road. These kinds of exchanges are one of the great benefits of working in an industry like ours. Seeing how viticulture is done in places other than your own backyard can really help to give a broader perspective to what we do, and sometimes even generate new thoughts and ideas. I'm looking forward to having a chance to go back to visit the vineyards in Brazil sometime in the not-too-distant future, preferably sometime in March or so when it's a little warmer than here.



Hillside vineyards in the Vale de Vinhedos.

COMMISSIONER RECEIVES WINE GRAPE TASK FORCE REPORT: Report Addresses 26 Recommendations to Help Grow the Wine Grape Industry

New York State Agriculture Commissioner Patrick Hooker received the Wine Grape Task Force's Final Report, which includes 26 recommendations. The Task Force was created in November 2007 to examine the needs of the wine grape sector and to identify any programmatic and regulatory measures necessary in order to enhance the vitality of New York State's wine grape industry.

"The growing of grapes and the making of wine are important components of the agricultural industry in New York State," the Commissioner said. "The value-added product they produce and the ripple effect it has to our communities and economy is what we need to learn from, duplicate and continue. I greatly appreciate the time the Task Force put forth into this document and look forward to addressing their recommendations as we work together to further the growth and prosperity of New York's evolving wine industry."

The New York State Wine Grape Task Force, charged with examining the needs of the wine grape sector and identifying any programmatic and regulatory measures necessary to enhance the vitality of New York State's wine grape industry, is a group of 15 leaders from the State's wine grape industry and represent all grape growing regions of the State. Kareem Massoud of Paumonok Vineyards on Long Island and Chair of the Task Force said, "With U.S. wine consumption records setting new highs year after year, this is a propitious time to enact reforms that will level the playing field on which we compete with other states and other countries and enable our New York State wine industry to flourish. On behalf of the Task Force, we are pleased to present Commissioner Hooker this report, which contains numerous recommendations we believe will help us grow our industry."

With the goal of doubling its economic impact to New York State in five years, the 15 member task force identified four priority action areas. Each priority action area has an objective and recommendations for the Commissioner with the intent to guide the core activities of state government and further advance the business activities of New York wineries. Below are the four priority action areas and a sampling of the 26 recommendations made by the Task Force.

State Liquor Authority

The State Liquor Authority regulates the alcoholic beverage industry, but often does not adequately consider the specific needs of wine growers and producers as agricultural and agribusiness enterprises. There is a need for reform of the Authority's regulations and statutes to better serve the needs of New York's wine industry, while still protecting the greater public interest with a soundly regulated alcoholic

beverage industry. Recommendations include removing off-premises requirements for satellite stores and enabling farm wineries to provide a “custom crush” service under existing licenses.

“The growing of grapes and the making of wine are important components of the agricultural industry in New York State...[t]he value-added product they produce and the ripple effect it has to our communities and economy is what we need to learn from, duplicate and continue.”

*- Patrick Hooker
NYS Agriculture Commissioner*

Environment and Sustainability

Viticulture is intimately tied to the environment. However, environmental regulations can impede viticulture’s growth and prosperity. The goal is to assure that the industry’s impact upon the environment is minimized, while recognizing its benefits upon the environment. The Task Force recommends better defining the industry’s wastewater treatment needs and develop regulatory options with consideration of volume, composition and seasonality.

Wine Promotion and Marketing

New York wines could benefit dramatically from improvements in marketing. Better awareness and availability of New York wines would raise the industry’s profile and better serve to New York wines’ visibility and demand. One recommendation is to work with Empire State Development to include wineries as part of the “I Love New York” campaign, encouraging participation in travel promotions, special events, media stories and advertisements.

Economic Development

The wine and grape industry is poised to enter a period of tremendous growth, but depends upon widespread commitment. Access to capital and government programs, trained labor and regulatory reform all are important components to a successful wine industry. Ensuring that guidelines developed for the upstate revitalization funds address the needs of the wine and grape industry, in particular the Manufacturing Assistance Program, is one of the Task Force’s recommendations.

A complete copy of the New York State Wine Grape Task Force’s Final Report, including all of its 26 recommendations, can be found on the Department’s website at www.agmkt.state.ny.us.

Kevin Martin Hired As New LERGP Business Management Educator

Lake Erie Regional Grape Program

The Lake Erie Regional Grape Program has selected Kevin Martin to fill the vacant Business Management position. As a member of the Lake Erie Regional Grape Program Extension Team, Kevin will be providing management planning and education for regional growers. Kevin has a number of years of experience in the grape industry, working on his father’s farm throughout his childhood in Sheridan, New York. Since that time he has earned a Masters of Public Administration at SUNY Albany and a Juris Doctorate at Albany Law School. Most recently he has worked as a budget analyst for the city of Sugar Land, Texas.



Much like growers, one of the issues facing municipalities is the rising cost of commodities. There was pressure to reduce costs with a minimal impact on service levels. The grape industry is under similar pressure. For instance, the pricing volatility in goods related to oil and other commodities requires frequent evaluation of business practices. Oil futures peaked at over \$140 per barrel and have since dropped 100%. We encourage you to seek the assistance of Kevin when trying to manage a vineyard with such high levels of price volatility. A good business decision today may be entirely different next week.

Economical and profitable grape farming continues, as it has been for years, to be a challenging enterprise. Growers are now running complicated businesses that require careful decision making and management strategies. Kevin looks forward to research and educational programs that assist the regional growers to overcome these challenges.

UPCOMING EVENTS

Ontario Fruit and Vegetable Convention

February 18-19, 2009

Brock University, St. Catharines, Ontario

Visit www.ofvc.ca for program and registration information.

Finger Lakes Grape Growers' Conference and Trade Show

March 6-7, 2009

Holiday Inn, Waterloo NY

Program and registration information will be posted on flg.cce.cornell.edu shortly.

Wineries Unlimited

March 10-13, 2009

Valley Forge Convention Center, King of Prussia, PA

Visit www.wineriesunlimited.com for information.

Lake Erie Regional Grape Growers Conference

March 18-19, 2009

SUNY-Fredonia, Fredonia NY

Contact Linda Aures at laures@netsync.net for more information.

New York Wine Industry Workshop

April 1-3, 2009

Clarion University Hotel and Conference Center, Ithaca NY

Contact Nancy Long at NPL1@cornell.edu for more information.



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