

# VERAISON TO HARVEST

## Statewide Vineyard Crop Development Update #10



Cornell University  
Cooperative Extension

November 4, 2013

Edited by Tim Martinson and Chris Gerling



### Final Issue...

#### LOOKING BACK AT 2013: THE VIRTUES OF NORMALCY



Chris Gerling  
Enology Extension Associate

*"I think we'd know normal if we saw it."*

-Hobbes, in Bill Watterson's *Calvin and Hobbes*

Looking back at some of my previous season recaps, they all seem to share a sort of breathlessness. Fatigue is a common condition this time of year, and fatigue certainly leads to shortness of breath.

It was more than just tiredness, though. There were hurricanes and months with record rainfall or record lack of rainfall. Growing degree days accumulated like pinball scores (2012) or...didn't (2009). There always seemed to be something extraordinary happening.

In 2013, the most notable meteorological feature may have been the absence of notable meteorological features. I don't mean to suggest that there was no bad weather or weather-related drama. We are still talking about agriculture, after all. It's just that after superstorms, 90 degrees in March or some of the other recent adventures, this year in New York felt almost, well, normal.

*It was an extended season at the Vinification and Brewing Laboratory, a service unit that vinifies about 300 lots of wine in support of both viticulture and winemaking experiments. The first lot of fruit was crushed just after Labor day, and the crush continued through this past week.*

Photo by Tim Martinson

**Normal.** Normal is a dangerous word, of course, because normal contains all of our own experience and bias. Normal is just what the person doing the describing has come to expect. I'll define my terms, then:

- I expect that there will be periods of heat and periods of cool, and that sometimes it will be rainy and sometimes dry, and sometimes all of these things will happen in one afternoon.
- I expect we will reach September and still have very little certainty about the level of ripeness or rot to be expected.
- I expect that people who fool around with spray intervals have a good chance of getting burned.
- I expect that we will be left wishing for five more warm, sunny days, but will consider ourselves lucky to have received the sunlight we did get.

To compare with recent years, I do not expect to have to mow the lawn in March. I do not expect hilltop vineyards hundreds of miles from the nearest ocean to flood. I think you get the idea.

**All Quiet on the Eastern Front.** While it's not quite over yet, 2013 has been one of the least active Atlantic hurricane seasons in recent memory. In the Atlantic, our ACE

is very low. 10 points for anyone who knew that ACE stands for Accumulated Cyclone Energy, and 10 more for knowing it is basically the hurricane equivalent of Growing Degree Days (GDDs).

The latest data shows the 2013 ACE to be about 30% of what would “normally” have been produced by this time. The bottom line is that it’s always good when we can avoid weather events that have names.

Producers in eastern New York, where the major damage from ocean-based storms usually occurs, may wonder if a year with no hurricanes is actually abnormal, and this is, unfortunately, probably a more accurate view. The models all expected higher than usual activity for this year, so the reasons for this season-long lull are “nothing routinely obvious,” as Brian McNoldy said in The Washington Post’s Capital Weather Gang blog. Wind shear apparently figures largely.

Regardless, the point is that it was a year without major storms, but not without plenty of challenges.

## A WINE PERSON SUMMARIZES THE GROWING SEASON

**Spring.** While the 2012 spring brought thrills, chills and spills, the spring of 2013 brought mainly just chills. It stayed cool for a long time, frustrating gardeners but keeping farmers calmer than usual.

The late start was a trade-off that most fruit growers in the northeast were all too happy to accept, although frosts did manage to damage crops for some of our Pennsylvania neighbors. Like all politics, all weather is local.

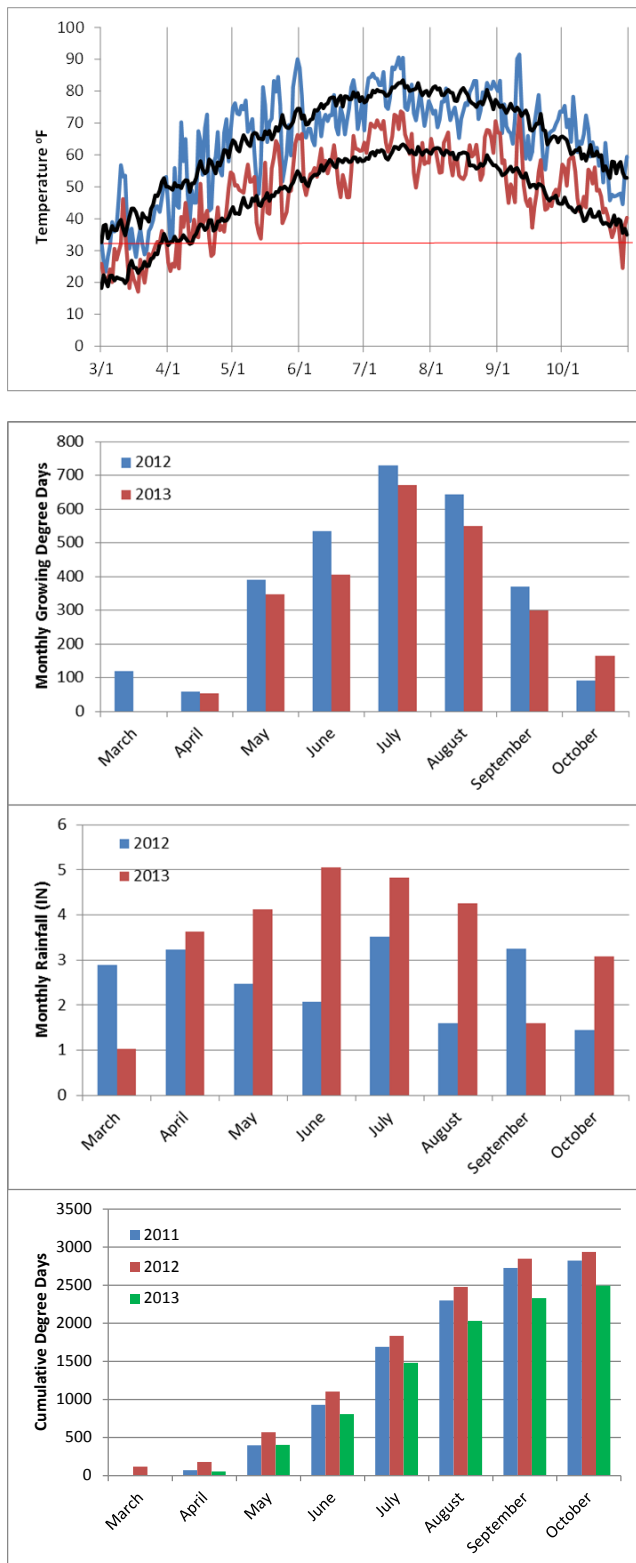
Also unlike the past couple of years, many vineyards set particularly heavy crops. The combination of high crop load and only fair heat accumulation would become one of the trends to watch.

**Summer.** It must have been a great year for landscaping services. When the grass did start growing, it never stopped.

The grape connection was that there was never a period (at least in some parts of the state) where things got very dry, with all of the good and bad implications associated with fairly consistent moisture: relatively little water stress but plenty of vegetative growth and disease pressure.

Vineyard folks did admirable jobs of keeping things clean throughout the summer while storms continued to wash off the spray materials. As late August ap-

## CLIMATE COMPARISON: 2012 AND 2013



**Temperature and Rainfall.** Daily min/max temperatures (top) tracked the long-term 25 yr average (in black). Monthly degree-day accumulations were consistently lower than 2012 (middle). Growing season rainfall (lower middle) was higher than 2012 in every month except dry September (50% lower). Cumulative degree-days (bottom) were lower than both 2011 and 2012. At 2500, they were close to the long-term average for Geneva.

Source: NEWA weather data for Geneva courtesy Tim Martinson

proached there was trepidation and even despair. The disease pressure continued to mount and the GDDs didn't.

This was the scene in the movie where all of the cars are driving toward the same intersection at high speed and here come the kids on bikes and oh, there's that lovable mutt chasing a ball and you just don't know how they're going to make it....

....and then we made it.

**Fall.** September saved the season. In Mark Chien's Pennsylvania summary, he spoke of a producer claiming in late August that, in order for it to still be a really good year, the rains needed to stop that very day. He got as close to his wish as you can ask for with Mother Nature, and it was a spectacular September.

While GDD accumulation never did engage the turbo, the sunny, dry weather stopped the clock on most disease pressure and pushed the ripeness forward in most vineyards.

The rain did return in October, and in some cases we "ran out of room," as someone who reaches the finish line on a strong sprint but still a bit behind the leader might say.

It's good to use a little perspective in this case, however. Seeing as how there was a time when it looked like we were headed for a last-place finish, a huge comeback to get into the medals is not a bad result at all.

**Slow Crush, Big Crush.** I recall running into Derek Wilbur of Swedish Hill last October 15th or so at Wegmans in 2012, and we marveled at the fact that the harvest was pretty much over.

This year was not early, but it wasn't late either, and for the first time in at least a couple of years, it wasn't particularly compressed. While the last two years have felt like three or four week sprints, in 2013 the Vinification & Brewing Lab had grapes just after Labor Day and the last lot was crushed this week. It was more a marathon than a sprint, and like a marathon, things got tough towards the end.

Lots of grapes means lots of juice, and lots of juice means full tanks, and all the sudden the grape classi-

fieds gets lots of listings. As Swedish Hill owner Dave Peterson said, "you know it's a surplus year when you even see Sauvignon Blanc and Syrah on the Cornell Classifieds site!"

**Plenty of Good.** The quality seems to be quite good on the whole. There are obviously exceptions and as previously mentioned it was far from a can't-miss year, but if you're looking for can't-miss, producing fruit and fruit-based beverages may not be the right occupation for you.

Speaking of Syrah and Sauvignon Blanc, Rich Olsen-Harbich is really excited about Bedell's Sauv Blanc and Vinny Aliperti likes his Syrah and other big reds for Atwater & Billsboro. Is it too late to pick up some off the listing? Vinny is less high on Pinot Noir, which was "picked under duress." There were certainly a few vineyards and varieties where that description was apt, and such picking is also not something that surprises us greatly in any given year. Since heat and maturity were challenges this year, to hear that reds are among the early favorites is an especially encouraging sign, however.

**The New Normal.** The other problem with the word normal is that it is now all-too frequently connected with one particular adjective: new. The "new normal" has become a way to describe broken things we can't or won't fix, and in doing so it combines pessimism and apathy in an especially exasperating way. It makes me think of a teenager who won't empty the dishwasher and doesn't see a problem with the situation. Anything from the unemployment rate to the fact that every third driver you see is holding a cell phone is the new normal. I'm considering trying that term for a few unfinished projects around the house, but I doubt I'll get away with it (nor do I think I should).

I have a positive spin on the new normal perfectly suited for the New York wine industry, however, and it goes like this: despite challenging conditions throughout the 2013 season, we have come to expect clean fruit and great wines. Less-than-perfect weather may be an old normal for us, but exceptional wine from pretty much every season- as well as a continuously rising quality baseline- does not surprise me in the least. And that's a new normal I support.



## CONCORD HARVEST: LARGE, AND IT'S NOT OVER YET

*Tim Martinson*  
*Dept of Horticulture*  
*NYS Agricultural Experiment Station*

Concord growers in Western New York and Pennsylvania are pulling in what looks to be a record crop this year. And it's not over yet.

According to Rich Erdle, Director of Grower Relations with National Grape Cooperative, based in Westfield, the processing plants in Westfield and Northeast will be receiving grapes until November 6.

In its 8<sup>th</sup> *Harvest Update*, dated October 31, National Grape Cooperative reported it had received 123,000 tons out of a crop estimated to total 139,000 tons. Final Niagara tonnage was around 19,000 tons in the tri-state (NY, PA, OH) area around Lake Erie (and the Finger Lakes), bringing National's total Concord and Niagara crop from the region to around 157,000 tons—close to a record for the Coop.

Lake Erie Regional Grape Program Farm Business Management specialist Kevin Martin estimates an additional 60,000 tons were processed by other purchasers (eg. Kott, Growers Coop, Constellation), bringing the total regional Niagara and Concord crop to about 220,000 tons.

Almost all grapes delivered are meeting processor's brix standards, and National Grape Coop deliveries to date have averaged 16 °Brix.

Scheduling has been an issue, with plants running at full capacity since opening. Loads that had been scheduled early, but weren't ready at the time were



*Concord harvest in the Finger Lakes*

Photo by Tim Martinson

bumped back to this final week. Three freeze events since Oct 30 and heavy winds over the weekend have probably reduced the crop in some late-harvested blocks, with a portion of the grapes shelling and ending up on the ground.

Mechanical crop thinning (see article in [Veraison to Harvest #8](#)) played a major role in helping growers harvest and deliver their crop to processors in a timely fashion. Those that thinned (50% of the NY acreage and 30% of the PA acreage, according to Erdle) were able to harvest early, and it seems that a good portion of the later deliveries will be from unthinned blocks that took longer to ripen.

Looking ahead to next year, it's likely that the late-harvested blocks will see some carryover effect on the return crop.

But its also clear that the favorable weather during the ripening season (3 warm, dry weeks in September) also helped growers bring in a very large and ripe Concord crop this year.



## FRUIT CHEMISTRY TRENDS: 2009-2013

Timothy E Martinson

The 2013 growing season was a return to 'average', compared with the record early and compressed harvest of 2012. Sampling from our 48 blocks in four growing regions of New York (Long Island, Hudson Valley, Finger Lakes, and Lake Erie) extended over 9 weeks, with harvest finishing two to three weeks later than 2012.

We collected 6-9 weeks of samples (depending on grape variety) for *Veraison to Harvest*, compared to 4-6 weeks last year. Graphs on the following three pages summarize trends in berry weights, brix, pH and titratable acidity for the five cultivars (Cabernet franc, Merlot, Noiret, Riesling, and Traminette) for which we have samples from several vineyards and regions. Shown are trends for the last five growing seasons (2009-2013) and an overall average (black dotted line) for the five years.

These five years demonstrate the range of yearly variation we see in the region, from the very cool season (2009) to two warm seasons (2010 and 2012). The 2013 season fell squarely in the middle.

**Berry weights.** These started out on the low end, but caught up by harvest.

**Brix.** Compared to 2010 and 2012, brix accumulations were much lower at the start, but reached the same endpoint as last year (Cabernet franc, Merlot, Traminette) – a few weeks behind. Noiret and Riesling ended up a few degrees lower than last year.

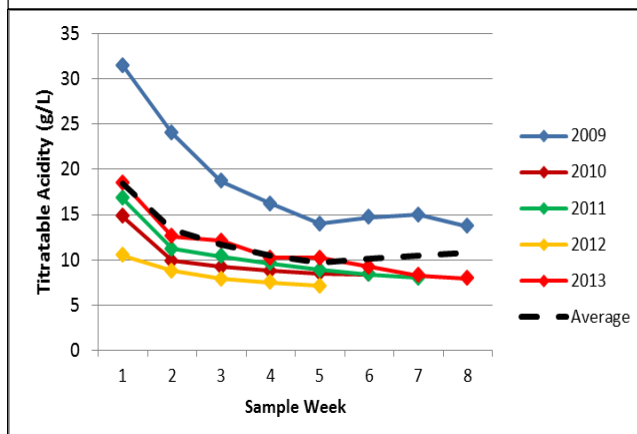
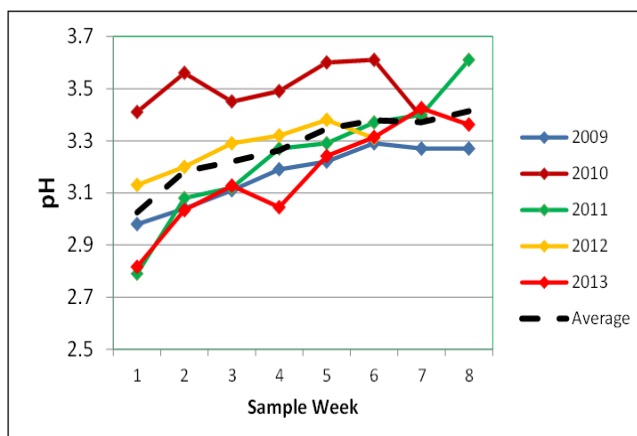
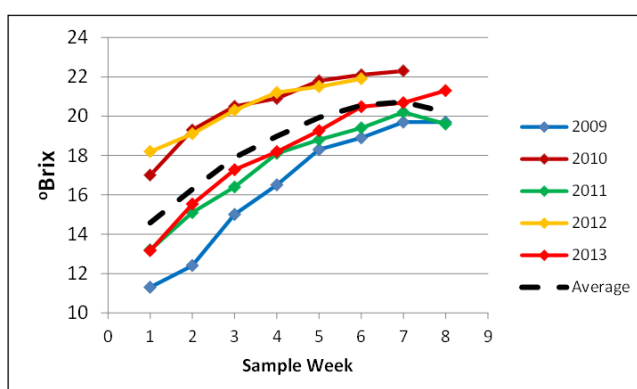
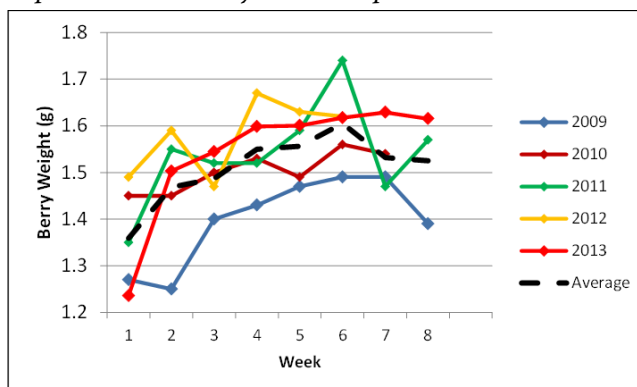
**pH.** The standout year for high pH (relative to other maturity indices) was 2010. By harvest, this year's pH values were in the same range as the other three seasons.

**Titratable acidity.** At the start of sampling, it was higher than the previous 3 seasons (2010-2012), but steadily dropped, ending up in the same place. Again, the cool 2009 season was the outlier, with TA values across all varieties 3 or 4 g/L higher than the other years.

So after one very cool season (2009) and three warm ones (2010-2012) the 2013 ripening season ended up right in the middle. Or as Chris Gerling nailed it (again) 2013 demonstrated "The virtues of Normalcy".

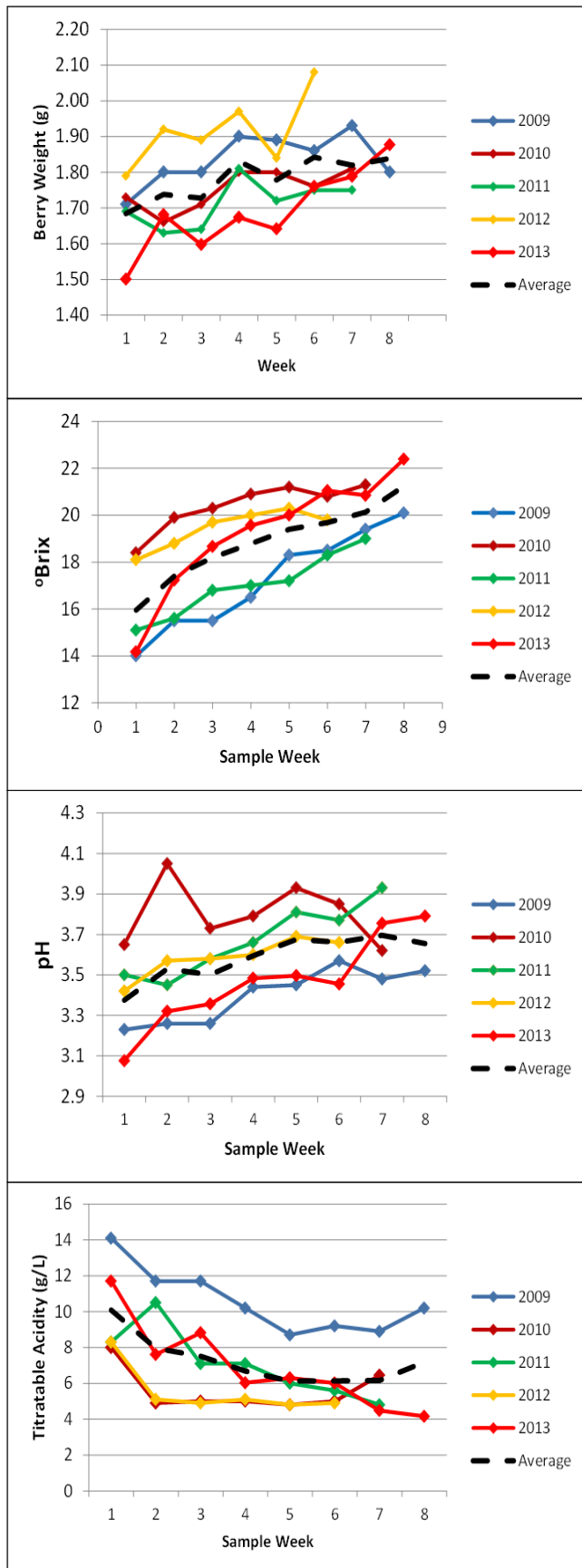
## Cabernet Franc

Top to Bottom: Berry Wt, Brix, pH, TA



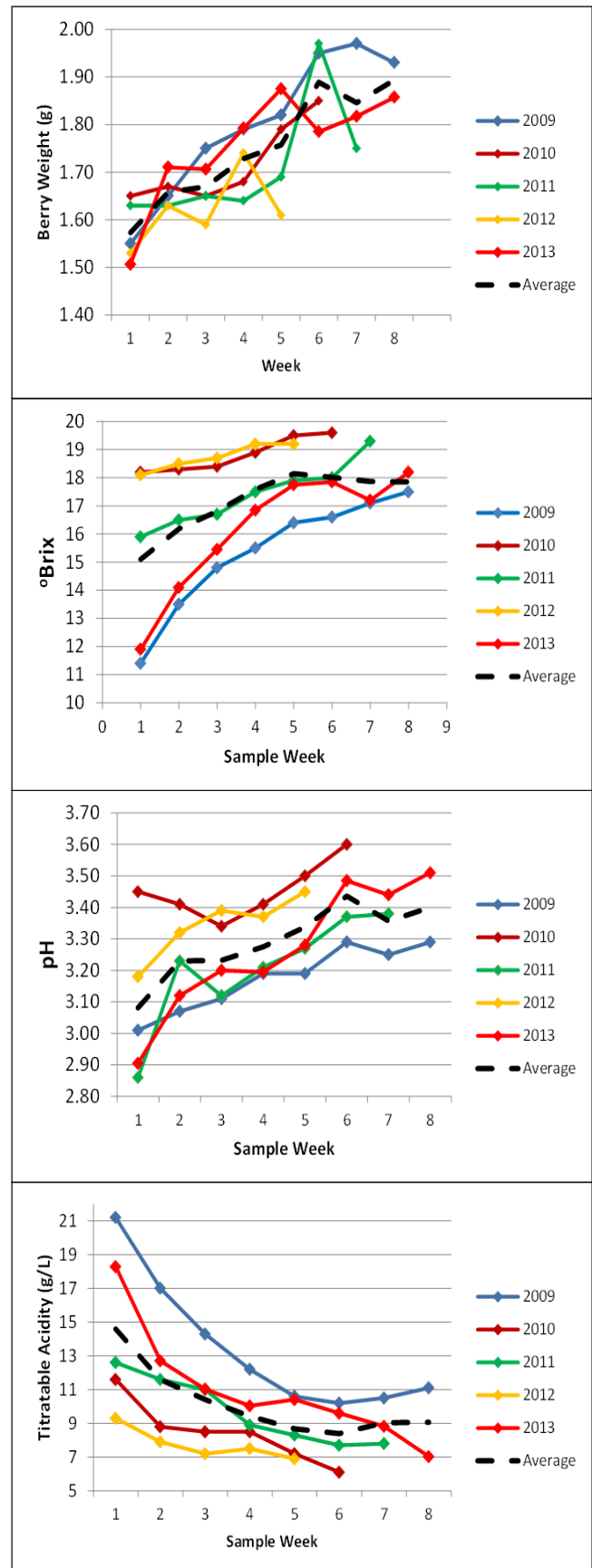
## Merlot

Top to Bottom: Berry Wt, Brix, pH, TA



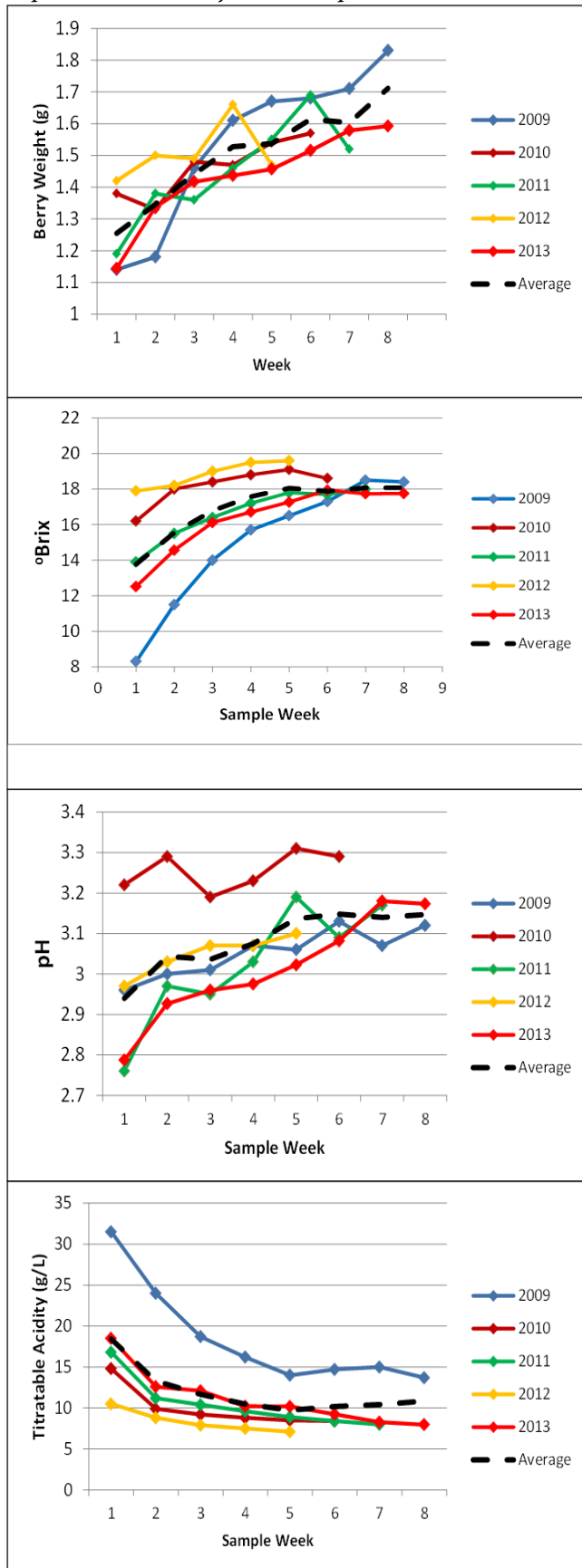
## Noiret

Top to Bottom: Berry Wt, Brix, pH, TA



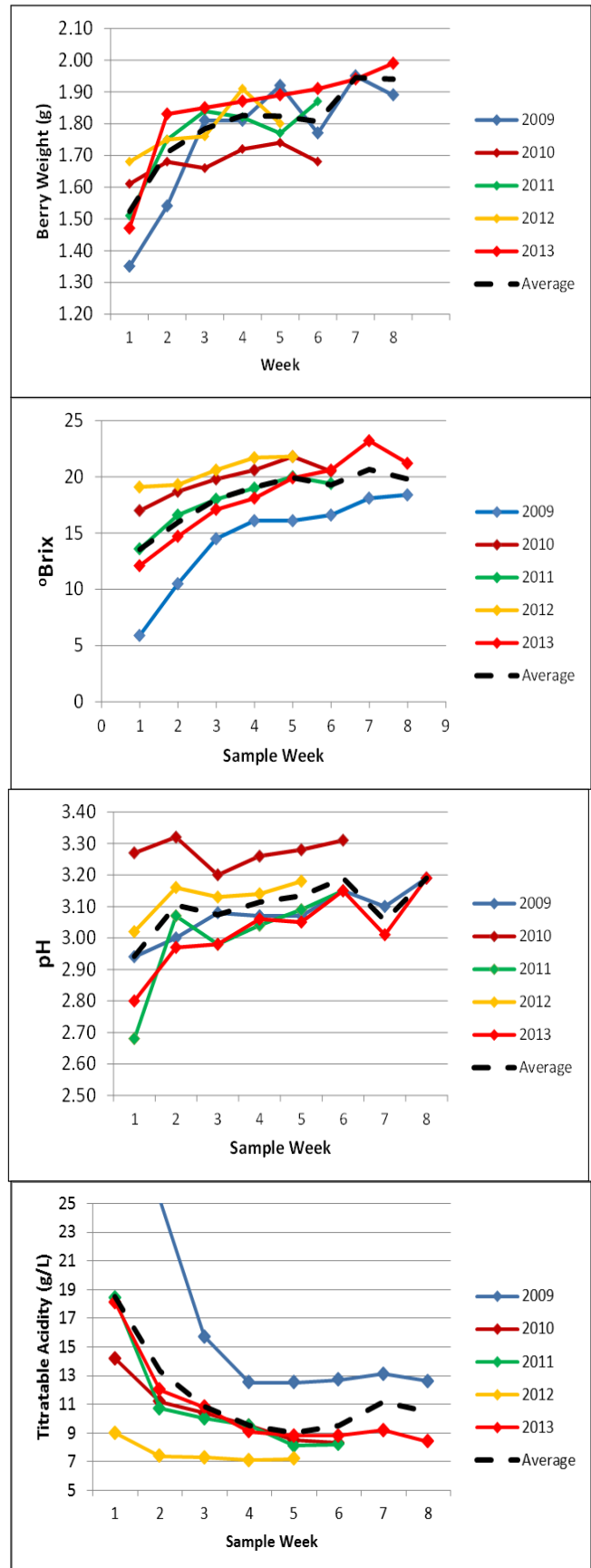
## Riesling

Top to Bottom: Berry Wt, Brix, pH, TA



## Traminette

Top to Bottom: Berry Wt, Brix, pH, TA





## THANKS AND ACKNOWLEDGEMENTS

Tim Martinson



Thanks to the many people contributed to bringing *Véraison to Harvest* to press each week.

**Enology Lab at Geneva:** (L to R) Ben Gavitt oversaw sample prep and analysis, graduate student Mark Nisbet provided YAN analysis, Chris Gerling co-edited the newsletter, David Manns ran the GC-MS analysis of acids, and Alex Fredrickson ran brix, pH, and TA analysis.



**Finger Lakes.** Mike Collizi and Hans Walter-Peterson of the Finger Lakes Grape Program, and Bill Wilsey with the Statewide Viticulture Extension Program handled sample collection and 'Around New York' updates for the Finger Lakes.



**Long Island:** Alice Wise (l) and Libby Tarleton, shown here with their Chardonnay harvest from the LI Hort Research and Extension Center handled Long Island.



**Lake Erie:** Paula Joy, Luke Haggerty, Madonna Martin and Kodi Robinson collected samples from Lake Erie region. Terry Bates (below on left) provided Concord ripening curve updates.



**Hudson Valley:** Steve Hoying (l) and Joe Whalon (r)



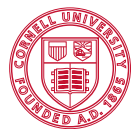


## THANKS TO OUR FUNDERS



This is the seventh year that the **New York Wine and Grape Foundation** has provided funding that allows us to provide data-based harvest updates to the New York industry through *Veraison to Harvest*. We want to especially thank the Foundation and its board of directors for providing us with the resources to put out this newsletter.

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**Cornell University**

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**Veraison to Harvest** is a joint publication of:

[Cornell Enology Extension Program](#)

[Statewide Viticulture Extension Program](#)

[Long Island Grape Program - Suffolk CCE](#)

[Finger Lakes Grape Program](#)

[Lake Erie Regional Grape Program](#)

[Hudson Valley Regional Fruit Program](#)

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## THE LAST GRAPES

The USDA Grape Germplasm collection at the New York State Agricultural Experiment Station has over 1000 accessions of cool-climate grapes and clones. All the leaves are gone, but many of the grapes are still hanging.



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