

# VERAISON TO HARVEST

Statewide Vineyard Crop Development Update #3



Cornell University  
Cooperative Extension

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Edited by Tim Martinson and Chris Gerling

## Around New York...

### Statewide (*Tim Martinson*)

As I write this (11 AM, Friday Sept. 12) it's cloudy and 53°. Feels like October. But temperatures over the last week were in the 70s and 80s, and maturity indicators are closing the gap from last year (p. 6-8). Notably, for some varieties, acids are within 0.5 g of last year's values. Early cultivars like Seyval blanc, Cayuga white, and (Long Island) Sauvignon blanc are in range with acids <10 g (One block of Seyval blanc and one of Cayuga White already harvested). Pinot noir and Chardonnay are closing in, with acids hovering around 10 g and °brix almost at 18. TA for Gruner veltliner (finger Lakes) and Merlot (Long Island, Hudson valley) has reached 7 g/l, and Merlot gained 5°Brix last week. Overall, most gains were in the realm or 1-2 °brix and acids dropped by 2-4 g. But mid to late varieties (Riesling, Cabernet Franc, Concord, Traminette, to name a few) have a long way to go yet. Marquette, harvested at a moderately ripe 23 °brix with 12 g/l acid in the Finger Lakes, still is showing 19 to 20 g/l TA in the North Country. With temperatures from Long Island to Portland forecast in the 60s to 70s through next tuesday (next sample date) progress in ripening is likely to slow down next week. In our feature article this week, Chris Gerling (p. 3-5) offers a general overview of potential winemaking issues and remedies.

### Finger Lakes (*Hans Walter-Peterson*).

A week of sun and warmer temperatures has pushed development of several varieties to the point of being ready for harvest. We picked our first crop of Marquette and seedless table grapes ('Jupiter') at the Teaching & Demonstration Vineyard this past Monday. We are also starting to see Elvira, Niagara, Diamond and Cayuga White starting to come off the vines this week. Some early Pinot noir and Chardonnay are being picked this week for sparkling wine production as well.

The summer-like conditions that the region has been enjoying for the past few weeks are coming to a stop today, with much cooler weather moving in for at least the next several days. While it can make working out in the vineyards a bit more comfortable, it will also certainly slow down ripening to some extent.

Looking back at last year's *Veraison to Harvest* from September 13, we are not that far behind where we were with regard to harvest. Last year at this time, we were harvesting



**Top:** Full moon rising over Sawmill Creek Vineyards, East Seneca Lake. **Bottom:** Aromella at Justine Vanden Heuvel's NE-1020 variety trial at the New York State Agricultural Experiment Station in Geneva.

Photos by Tim Martinson

many of the same varieties that we are right now, so perhaps the weather the past couple of weeks has helped to alleviate at least some of the worries about a late harvest season this year.

Downy mildew infections are active in some blocks on young leaves that are emerging near the top of canopies, but in most cases growers have not been pulling out the sprayers to deal with them this week. The cooler temperatures and rain that we're expecting over the next few days may change that, however.

### Long Island (*Alice Wise and Libby Tarleton*)

The big news from Long Island continues to be the dry weather. We've had ~ 8" of rain June through August and

only a few drops (0.04") in September. Row middles are brown with the exception of crabgrass which seems to thrive no matter what the weather. On the positive side, disease management has been relatively easy this season. In a few blocks, there is just a touch of downy mildew in the top of the canopy. While scouting yesterday, one berry with Botrytis was seen in the research vineyard. Clean fruit in mid-September bodes well for a good harvest. Fingers are crossed for continued sunny, dry weather. Growers have harvested fruit for sparkling wine and are now moving into Pinot Noir. Yields are average to above average. Some blocks will come in with big yields barring any losses from cluster rot. There are a few bees around, a fruit fly here and there but overall the sometimes pesky harvest insects have not been a problem. In the research vineyard, we harvested Marquette and Auxerrois on September 11. Harvest data was not available as of this writing but last week they tested at 25.6 Brix, 14.7 g/l TA and 21.5 Brix, 6.3 g/l TA, respectively. Next week we will likely pick Pinot Noir, Zweigelt and perhaps a few early whites such as Muscat Ottonel and Pinot Gris.

### **Hudson Valley (Jim O'Connell)**

A short break in heat and humidity came to the Hudson Valley over this past weekend, to end the month of August on a cooler note. The heat and humidity have though have returned this week, and the Hudson Valley continues to be warm and dry. Temperatures over the last several days have again reached the upper 80s into the low 90s and the grapes have responded with increased brix levels. The weather forecast is predicting rain for Saturday and with it a break in the heat.

**Disease.** Disease pressure is lower this week. The drier weather, along with fungicide applications, has reduced downy mildew and botrytis populations here at the Hudson Valley Lab. It's still early though, and with wetter, cooler weather on the way, we will keep a close eye on the vineyard.

**Birds.** The birds are still here. Growers have either netted their vineyards, or installed scare devices (e.g. propane cannons, distress calls, etc.).

**Insects.** *Drosophila* (i.e. common vinegar fly) has moved into many of the grapes damaged from bird pecks. Although the populations are noticeable, I haven't heard of any growers treating for them yet. Here at the Hudson Valley Lab, along with the drosophila, I have noticed an increase in brown marmorated stink bugs (BMSB). We will continue to monitor the population levels and decide on a necessary course of action. Maybe we'll get lucky and some indigenous bird will develop a taste for fresh BMSB!

### **Lake Erie (Luke Haggerty)**

Weather this past week has been warmer than average helping us accumulate the much needed growing degree days. Early this week most of the Lake Erie grape region experienced highs in the lower 80's with lots of sunshine. However, many vineyards have plenty of moisture as we have received between 1.5 to 2 inches of rain in the past 10 days. The wet conditions have prolonged the battle against downy mildew and botrytis bunch rot on susceptible varieties.

Harvested this week were Marquette, La Crescent, and Seyval. The focus for this coming week will be to finish the rest of the early ripening grapes and gear up for the start of the Niagara harvest which should start late next week (18-22 of September). Sampling data for the 9-site study collected by Kelly Link and our CLEREL staff shows another jump in brix for 'Concord' this past week. The averaged brix from the regions' 80 sample sites shows that the total average jumped from 10.7 to 12.4°brix (1.7°brix).

Grape Berry Moth (GBM) counts have been high throughout the year with many test sites having double the numbers of GBM than normal. Andy Muza, Penn State extension educator for Erie County PA, examined grape clusters for GBM eggs on eight high-risk sites and found some staggering numbers. The late August survey looked at 25 clusters per sites and the results were; 16%, 48%, 52%, 64%, 72%, 92%, 96% and 100% of clusters examined had GBM eggs. During coffee pot meeting and numerous Crop Updates growers were encouraged to use local NEWA sites ([http://newa.Cornell.edu/index.php?page=berry-moth](http://newa Cornell.edu/index.php?page=berry-moth)) to time insecticide applications to control damage caused by GBM..

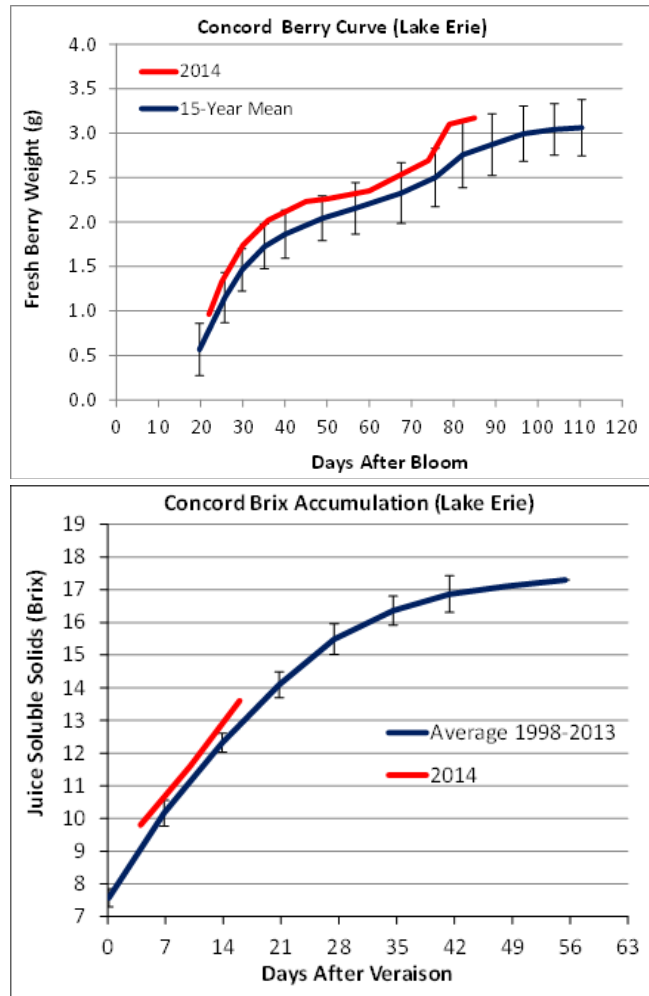


*Benjamin Bois, visiting from Burgundy, France is a professor at the University of Burgundy in Dijon. He presented a talk on the influence of climate change on Pinot noir this past monday, organized by Finger Lakes Grape Program. Shown here with Scott Osborn, owner of Fox Run Vineyards in Penn Yan.*

Photo by Tim Martinson

## 2014 LAKE ERIE CONCORD UPDATE: *Terry Bates*

**September 11, 2014.** After a huge initial post-ve-raisin jump in fresh berry weight, Concord fruit at CLEREL and across the Lake Erie region has tapered to just under 3.2 grams. Final berry weight is still predicted to settle in between 3.2-3.4 gram berries at most sites. It was a warm and relatively dry week in western NY which helped keep fruit sugar accumulation slightly ahead of pace compared to the long-term average. With a cool and wet week approaching, we expect sugar accumulation to slow down and more closely reflect the average Brix curve.



## ASSESSING THE 2014 WINEMAKING SEASON

*Chris Gerling*

*Dept. of Food Science, Cornell University,  
NY State Agric. Expt. Sta., Geneva*

When it became apparent that winter had caused serious damage to vineyards across New York, the question everyone asked was “what will the harvest look like this year?” The answer in March and April was: it’s too soon to tell. Then fruit set finally happened, the season really got under way, and people asked again, “how does it look?” The answer was (in most cases): not as bad as we thought, but it’s too soon to tell. June became July, July became August, and “how do the grapes look for harvest?” This time: the hail was not helpful, but it’s too soon to tell.

Now we are rapidly approaching mid-September and this seems unbelievable, but in many cases it’s still too freakin’ soon to have much idea what harvest will bring. Of course the real truth is that it’s always too soon until the bins are on the scale, but in most years we have more idea of where things are heading, and a much narrower range of outcomes. Like a terrible dealer at a



*Winemaking season at the V&B: Marquette was the first lot of fruit brought to the Vinification and Brewing Laboratory at Geneva. Grad student Alex Frederickson is using it for his project on tannin additions in hybrid grapes.*

Photo by Chris Gerling

blackjack table, 2014 has been painfully slow to show us our fate. We haven't particularly liked a lot of the cards we've been dealt so far, but we're not busted either, so let's try and put together a plan with the information we have.

We continue to trail 2013- and pretty much every other V to H year—when looking at maturity levels, although numbers don't look quite as severe as they did at the beginning of the V to H cycle. We have made up ground, and are now in striking distance of the long-term average in some cases, while still a little ways back in others.

Winemakers and vineyard managers should be talking every year, but because of the extremely local nature of the winter damage, the hail damage and the rest of the crazy weather, it's especially important to be in touch and have a plan in 2014. Your situation is more likely than ever to be different from your neighbor's, and if a winery is getting one grape variety from multiple growers, odds are higher that the various lots will be markedly different.

In my opinion, you should have a very good reason why you're harvesting on or about the same date as last year. Disease pressure, predicted upcoming weather and/ or the fact that the numbers and flavors are actually equivalent or better than 2013 are all good reasons. "This is when we usually do it," not so much. Varieties like Cabernet Franc and Cabernet Sauvignon reach their peak methoxyprazine levels early in the season, so now time is the single best way to allow MPs to decay below sensory threshold.

In the winery, if the fruit does come in at less than ideal maturity and/ or with rot concerns, there are a few techniques to consider:

**Sorting.** I know that not a lot of people have the time or resources to sort. I also know that if you have a variable lot of grapes, sorting is a straightforward way to handle it at the earliest stages. Keep in mind that the two sorting options don't have to be keep vs. toss. In many cases, what is sorted "out" may still be usable and even useful in another wine (perhaps with a fining/ filtration step).



**Separate tanks.** If you are receiving less fruit this year than last year (probably), and you have managed to get your entire 2013 vintage into bottles (not as likely), you may have some tank flexibility. That flexibility can be used to separate vineyard blocks or press fractions that show big differences. The resulting wines may not be as different as you expect or they may present new opportunities, but either way there are options.

**Clarification.** Good clarification is important in every year, and especially important in years where there could be disease pressure and accompanying late season sprays. Work done by the Sacks lab and then Hans Walter-Peterson and I shows major reduction in any residual sulfur or fungicide residue through simple overnight settling and racking. Flotation or other clarification methods should be equally effective. Remember that over-clarification can also be problematic, so in the words of Henry Wadsworth Longfellow: "don't go nuts."

**Yeast strains that degrade malic or co-inoculation with ML bacteria.** Under-ripe fruit is likely to be relatively high in malic acid; just like MPs, malate degrades in the late season. To lower it ASAP, consider yeast strains like 71B or also encapsulated products. Co-inoculation with ML bacteria will be even more effective at removing malic (still producing lactic acid, of course) and the resulting wine is less likely to have "ML" character than in a sequential process. Remember to use compatible yeast and bacteria, and also keep in mind that 'co-inoculation' really means ML inoculation 24 hours or so after the yeast pitch.

**Chaptalization.** Not new, but effective. Higher levels of alcohol are associated with perceived warmth and sweetness, which are in turn associated with riper character. With reds you may consider pushing the level to 23 or 24 degrees

brix. This trick is generally thought to be more beneficial for reds than whites, although I'd be interested to hear if anyone had done trials.

**Heat.** Not everyone has the capacity for thermovinification, but those who do may want to employ it more liberally this year. While the fruit may be simplified and the effect is fairly broad (we call such a procedure "non-selective"), the "after" may still be preferable to the "before." Heat is another area for reds as opposed to whites, of course.

**Juice filtration/ fining.** Filtration and fining are also relatively non-selective procedures that may still carry a net benefit. PVPP can remove browning compounds and bentonite will take out potentially detrimental enzymes. It will remove potentially helpful enzymes too, so plan accordingly. Linda Bisson found that fermentation was least inhibited if the bentonite was removed following fermentation. This scenario prevents the previously mentioned danger of over-clarification. DE filtration is also useful in situations with heavy disease pressure. Keep in mind that most attempts at depth and pretty much any membrane filtration with turbid juice will be about as effective as passing a grapefruit through a straw.

Hard as it is to believe, the year where the spring would not come will soon be behind us. We have begun harvest at the V&B lab in Geneva (see photos), and now the weeks will pass even faster (the days will go slower, which is strange). In the meanwhile, we will bring you some more information about safety and sanitation, which are always in fashion regardless of the year, so be on the look out. Please keep safe so you can be in good health and good spirits when the season does wrap up. When will that be? Well, it's too soon to tell.

## FRUIT MATURATION REPORT - 9/09/2014

Samples reported here were collected on **Tuesday, September 9** Where appropriate, sample data from 2013, averaged over all sites is included. Tables from 2013 are archived at <http://grapesandwine.cals.cornell.edu/newsletters/veraison-harvest>

We are again reporting berry weight, brix, titratable acidity and pH, and yeast assimilable nitrogen (YAN). Graduate students Alex Frederickson and Camila Martin Tahim and Ben Gavitt are running the fruit composition and YAN assays.

### Cabernet Franc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	E. Seneca	1.50	17.5	2.91	11.6	89
Finger Lakes	9/9/2014	W. Seneca	1.34	14.7	2.83	13.4	47
Finger Lakes	9/9/2014	Cayuga	1.41	16.4	2.95	10.1	23
Finger Lakes	9/9/2014	W. Seneca	1.62	15.4	2.89	12.3	36
Finger Lakes	9/9/2014	Teaching Vyd	1.46	16.1	2.99	9.5	50
Hudson Valley	9/9/2014	HV Lab	1.72	17.3	3.24	8.7	92
Long Island	9/9/2014	LI-05	1.96	17.4	3.20	8.3	28
Long Island	9/9/2014	LI-07	1.61	16.9	3.08	9.3	37
<b>Average</b>	<b>9/9/2014</b>		<b>1.58</b>	<b>16.5</b>	<b>3.01</b>	<b>10.4</b>	<b>50</b>
<i>Prev. Sample</i>	<i>9/2/2014</i>		<i>1.51</i>	<i>14.7</i>	<i>2.88</i>	<i>14.0</i>	
<i>'13 Average</i>	<i>9/9/2013</i>		<i>1.54</i>	<i>17.3</i>	<i>3.13</i>	<i>9.7</i>	<i>93</i>

### Catawba

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Keuka	2.82	9.4	2.55	*	124
<i>Prev Sample</i>	<i>9/2/2014</i>	<i>Keuka</i>	<i>2.26</i>	<i>8.0</i>	<i>2.45</i>	<i>*</i>	
<i>'13 Sample</i>	<i>9/9/2013</i>	<i>Keuka</i>	<i>2.21</i>	<i>14.2</i>	<i>2.74</i>	<i>18.6</i>	<i>95</i>

### Cayuga White

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Keuka	2.77	15.4	2.83	13.6	130
Finger Lakes	9/9/2014	Cayuga	2.63	17.3	3.05	8.9	166
Finger Lakes	9/9/2014	Teaching Vyd	2.65	12.2	3.01	8.6	94
<b>Average</b>	<b>9/9/2014</b>		<b>2.68</b>	<b>15.0</b>	<b>2.96</b>	<b>10.3</b>	<b>130</b>
<i>Prev Sample</i>	<i>9/2/2014</i>		<i>2.48</i>	<i>14.6</i>	<i>2.83</i>	<i>13.3</i>	
<i>'13 Average</i>	<i>9/9/2013</i>		<i>3.00</i>	<i>16.9</i>	<i>3.08</i>	<i>9.7</i>	<i>160</i>

### Chardonnay

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Cayuga	1.42	15.0	2.92	12.6	136
Finger Lakes	9/9/2014	W. Seneca	1.54	16.5	2.84	12.3	67
Finger Lakes	9/9/2014	W. Seneca	1.75	16.8	2.98	10.3	96
Finger Lakes	9/9/2014	Teaching Vyd	1.35	18.6	2.96	8.8	53
Long Island	9/9/2014	LI-03	1.74	19.4	3.27	7.3	160
<b>Average</b>	<b>9/9/2014</b>		<b>1.56</b>	<b>17.3</b>	<b>2.99</b>	<b>10.2</b>	<b>102</b>
<i>Prev. Sample</i>	<i>9/2/2014</i>		<i>1.44</i>	<i>14.9</i>	<i>2.90</i>	<i>13.2</i>	
<i>'13 Average</i>	<i>9/9/2013</i>		<i>1.51</i>	<i>17.5</i>	<i>3.13</i>	<i>9.6</i>	<i>171</i>

### Concord

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Keuka	3.54	12.2	2.88	13.2	109
Finger Lakes	9/9/2014	W. Canandaigua	3.30	12.7	2.87	12.6	95
Lake Erie	9/9/2014	Portland	3.47	12.7	2.93	14.7	193
<b>Average</b>	<b>9/9/2014</b>		<b>3.43</b>	<b>12.5</b>	<b>2.89</b>	<b>13.5</b>	<b>132</b>
<i>Prev Sample</i>	<i>9/2/2014</i>		<i>3.11</i>	<i>10.9</i>	<i>2.80</i>	<i>17.8</i>	
<i>'13 Sample</i>	<i>9/9/2013</i>		<i>3.06</i>	<i>13.8</i>	<i>3.07</i>	<i>10.9</i>	<i>184</i>

## Corot Noir

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Teaching Vyd	2.05	13.8	2.98	10.6	57
<i>Prev Sample</i>	9/2/2014	Teaching Vyd	1.75	13.8	2.87	13.4	

## Gruner Veltliner

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Teaching Vyd	1.56	17.0	3.09	7.7	152
<i>Prev Sample</i>	9/2/2014	Teaching Vyd	1.49	15.2	3.08	8.7	

## Lemberger

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Keuka	1.56	17.9	2.91	11.3	20
Finger Lakes	9/9/2014	Teaching Vyd	2.02	16.4	3.08	9.4	225
<b>Average</b>	<b>9/9/2014</b>		<b>1.79</b>	<b>17.2</b>	<b>3.00</b>	<b>10.3</b>	<b>258</b>
<i>Prev. Average</i>	9/2/2014		1.75	15.4	2.92	12.4	
<i>'13 Sample</i>	9/9/2013	Keuka	1.81	20.2	3.01	9.3	24

## Malbec

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Long Island	9/9/2014	LI-06	2.74	16.7	3.14	9.5	72
<i>Prev Sample</i>	9/2/2014	LI-06	2.57	14.5	2.96	13.9	
<i>'13 Sample</i>	9/9/2013	LI-06	2.25	18.1	3.25	8.7	168

## Marquette

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	HARVESTED					
<i>Prev. Average</i>	9/2/2014	Teaching Vyd	1.09	22.7	2.98	12.9	

## Merlot

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Hudson Valley	9/9/2014	HV Lab	1.82	18.1	3.38	7.6	148
Long Island	9/9/2014	LI-04	2.19	19.1	3.33	5.9	44
Long Island	9/9/2014	LI-08	1.90	16.6	3.24	7.9	56
<b>Average</b>	<b>9/9/2014</b>		<b>1.97</b>	<b>17.9</b>	<b>3.32</b>	<b>7.1</b>	<b>83</b>
<i>Prev. Average</i>	9/2/2014		1.83	12.9	3.11	10.7	
<i>'13 Average</i>	9/9/2013		1.60	18.7	3.36	8.8	127

## Niagara

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Lake Erie	9/9/2014	Portland	3.71	12.3	2.99	10.8	144
<i>Prev Sample</i>	9/2/2014	Portland	3.78	11.6	2.95	13.3	
<i>'13 Sample</i>	9/5/2012	HARVEST 2012	3.84	16.6	3.26	7.2	205

## Noiret

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Hudson Valley	9/9/2014	HV Lab	1.72	16.5	3.12	9.4	165
Lake Erie	9/9/2014	Fredonia	1.79	16.5	3.05	13.8	351
<b>Average</b>	<b>9/9/2014</b>		<b>1.75</b>	<b>16.5</b>	<b>3.09</b>	<b>11.6</b>	<b>258</b>
<i>Prev Sample</i>	9/2/2014		1.79	14.5	2.97	14.0	
<i>'13 Sample</i>	9/9/2013		1.71	15.5	3.20	11.0	239

## Pinot Noir

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	E. Seneca	1.44	17.7	3.05	10.7	136
<i>Prev Sample</i>	9/2/2014	E. Seneca	1.40	16.5	2.98	12.3	
<i>'13 Sample</i>	9/9/2013	E. Seneca	1.46	19.0	3.11	8.8	54

## Riesling

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	E. Seneca	1.29	12.4	2.82	16.2	75
Finger Lakes	9/9/2014	E. Seneca	1.66	16.1	2.83	13.7	56
Finger Lakes	9/9/2014	W. Seneca	1.12	14.6	2.80	15.1	60
Finger Lakes	9/9/2014	E. Seneca	1.67	13.6	2.87	15.9	180
Finger Lakes	9/9/2014	CL 90 Cayuga	1.45	15.1	2.86	14.4	127
Finger Lakes	9/9/2014	Keuka	1.20	14.1	2.83	15.2	106
Finger Lakes	9/9/2014	W. Seneca	1.61	13.9	2.80	17.2	161
Finger Lakes	9/9/2014	W. Seneca	1.61	14.2	2.83	15.6	139
Finger Lakes	9/9/2014	W. Canandaigua	1.49	13.1	3.14	16.9	118
Finger Lakes	9/9/2014	Teaching Vyd	1.32	15.6	2.80	13.9	70
Hudson Valley	9/9/2014	HV Lab	1.67	16.0	3.18	8.7	150
Lake Erie	9/9/2014	Portland	1.59	12.8	2.99	13.2	207
Long Island	9/9/2014	LI-01	1.58	16.2	3.05	8.8	52
<b>Average</b>	<b>9/9/2014</b>		<b>1.48</b>	<b>14.4</b>	<b>2.91</b>	<b>14.2</b>	<b>115</b>
<i>Prev Sample</i>	9/2/2014		1.37	12.3	2.78	17.5	
<i>'12 Sample</i>	9/9/2013		1.42	16.1	2.96	12.1	111

## Sauvignon Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Long Island	9/9/2014	LI-02	1.36	20.2	3.09	8.1	32
<i>Prev Sample</i>	9/2/2014	LI-02	1.27	17.1	3.01	10.1	
<i>'12 Sample</i>	9/9/2013	LI-02	1.23	22.1	3.23	8.1	141

## Seyval Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	HARVESTED					
Lake Erie	9/9/2014	Portland	1.82	18.2	3.04	9.0	148
<b>Average</b>	<b>9/9/2014</b>		<b>1.82</b>	<b>18.2</b>	<b>3.04</b>	<b>9.0</b>	<b>148</b>
<i>Prev Sample</i>	9/2/2014		1.80	16.2	2.95	10.9	
<i>'13 Sample</i>	9/9/2013	Cayuga	1.77	19.9	3.22	6.4	126

## Traminette

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Keuka	1.93	13.6	2.74	17.0	121
Hudson Valley	9/9/2014	HV Lab	1.88	16.4	2.98	10.5	32
Lake Erie	9/9/2014	Portland	1.91	15.8	3.00	14.5	313
<b>Average</b>	<b>9/9/2014</b>		<b>1.90</b>	<b>15.3</b>	<b>2.91</b>	<b>14.0</b>	<b>155</b>
<i>Prev Sample</i>	9/2/2014		1.84	13.4	2.83	18.5	
<i>'13 Sample</i>	9/9/2013		1.85	17.1	2.98	10.8	79

## Vidal Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	Teaching Vyd	2.08	16.5	3.02	12.0	70
<i>Prev Sample</i>	9/2/2014	Teaching Vyd	1.73	14.7	2.86	14.1	

## Vignoles

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/9/2014	High Wire Keuka	1.95	16.8	2.85	19.0	176
Finger Lakes	9/9/2014	W. Seneca	1.80	17.5	2.83	18.3	150
<b>Average</b>	<b>9/9/2014</b>		<b>1.87</b>	<b>17.2</b>	<b>2.84</b>	<b>18.7</b>	<b>163</b>
<i>Prev Sample</i>	9/2/2014		1.69	16.9	2.85	17.7	
<i>'13 Sample</i>	9/9/2013		1.67	22.3	3.05	15.7	175





## Viticulture, enology and marketing for cold-hardy grapes



### MARQUETTE AND FRONTENAC FRUIT COMPOSITION AT CLAYTON

*Crislyn Particka and Tim Martinson*

Samples from training trials (Top Wire Cordon, Vertical Shoot Positioning, and Umbrella Kniffin) in Marquette and Frontenac located at Coyote Moon Vineyards in Clayton, NY show the fruit has a ways to go before harvest. The first set of samples were taken at the completion of véraison (8/20) and a second set of samples was taken this week (9/8). Titratable acidity has fallen roughly 10 g/L in both Frontenac and Marquette since the 8/20 samples (~ 23 g/L in Frontenac and ~ 18 g/L in Marquette). Both cultivars have gained roughly 5 °Brix since the first sample.

Variety	Training system	Date	Berry wt. (g)	pH	°Brix	Titratable Acidity (g/L)
Frontenac	TWC	9/8/2014	1.41	2.95	19.6	22.2
	UK	9/8/2014	1.34	2.93	19.2	23.7
	VSP	9/8/2014	1.40	2.96	18.5	24.5
	<b>Average</b>	<b>9/8/2014</b>	<b>1.38</b>	<b>2.95</b>	<b>19.1</b>	<b>23.5</b>
	Prev Sample	8/20/2014	1.33	2.61	13.3	33.2
Marquette	TWC	9/8/2014	1.69	2.96	21.3	18.1
	UK	9/8/2014	1.68	2.97	20.8	17.9
	VSP	9/8/2014	1.38	2.93	20.7	17.7
	<b>Average</b>	<b>9/8/2014</b>	<b>1.58</b>	<b>2.95</b>	<b>20.9</b>	<b>17.9</b>
	Prev Sample	8/20/2014	1.40	2.70	15.7	27.5



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