Veraison to Harvest

Statewide Vineyard Crop Development Update #2

September 5, 2014

Cornell University Cooperative Extension

Edited by Tim Martinson and Chris Gerling

Around New York...

Statewide *(Tim Martinson)*

Hot, and mostly dry (it rained one day in the Finger Lakes) weather kicked ripening into high gear this week. Last week's stratospheric acid levels dropped by 3 to 7 g/l in this week's samples, with some of the earlier grapes (Seyval blanc, Sauvignon blanc) nearing 10 g/l, and many others somewhere between 12 and 17 (See Riesling and Traminette). Soluble solids went up by 1.5 (Chardonnay) to 4.5 °Brix (Vignoles), with many around 2.0°Brix higher than last week. Numbers are still trailing those from last year by a substantial margin. This week, Wayne Wilcox provides a review of sour rot research in Ontario and New York (p. 3-6), a timely topic in this wet (in the Finger Lakes at least) season.

Long Island (*Alice Wise and Libby Tarleton*)

It is always so interesting to contemplate the season's particular patterns for temperature/rainfall and how vines respond. No two seasons are alike though we can make some vague predictions based on previous seasons. After two wet harvests in 2011 and 2012, we had a dry year in 2013. 2014 is shaping up to be another dry harvest. We had only a few days this summer with appreciable rainfall (>0.25") – only three days in June and two each in July and August. September thus far is similarly dry. Our research vineyard is situated on a very well-drained sandy loam that is 70% sand. We have irrigated almost weekly through much of the summer to sustain our canopy and crop. The long-term drought has resulted in modest canopies with relatively small leaves. Periderm on canes has developed rapidly over the last two weeks. Where vines are experiencing stress, leaves are slightly cupped and shoot growth has stopped. Younger vines of course are more affected by the lack of rainfall than more established vines. We've had to hand water younger vines not directly hit by emitters. Merlot, traditionally sensitive to dry conditions, is variable with some vines looking fine and others slightly stressed. Veraison in the research vineyard is complete with the exception of Petit Verdot, always the last to fully turn. In the industry, there is some variation in the progress of veraison depending on the site and crop load. For example, some Merlot is fully colored while blocks with a heavier crop still have some green fruit. Growing degree days are slightly behind previous seasons. As of September 2, GDD's stand at 2480. At the same date, totals were 2866 and 2599 in 2012 and 2013, respectively.

Top: *Harvest begins in the Finger Lakes with Aurore and Baco noir.* ***Bottom:*** *Cabernet franc is still making its way through veraison.*

Top: Photo by Hans Walter-Peterson; Bottom: Photo by Tim Martinson

Some of the differences in GDD's are undoubtedly due to the cooler night temperatures this summer. Until recently, we had avoided the warm, muggy nights that are common during Long Island summers. Overall, harvest looks very promising. It seems likely that fruit will ripen slowly which is a good thing. That tends to promote rich, ripe tannins and optimum flavors. The lack of cluster rot (thus far) means that advancing cluster rot will not dictate harvest.

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)*

The much needed heat this past week resulted in a big jump in sugar in most all grape cultivars. The regional average for 'Concord' soluble solids is ~10.7°Brix (as of 9/2) and has increased 2.5°Brix from 8/25 to 9/2. Although we are seeing maturity progression, there seems to be a large amount of variation within vineyard blocks. In many of the Concord blocks I've been in this past week it was common to see vines that were lagging behind and have not gone through veraison next to vines that have full color.

Area growers started the harvest season off by picking Edelweiss, Baco noir, and Aurore and looking at starting Elvira early next week. We expect to start picking Seyval, Marquette and other early hybrids latter next week if the acids drop. If the weather cooperates and the Concords continue to ripen at their current rate we can expect harvest to begin during the last week of September and/or the first week of October.

Finger Lakes (*Hans Walter-Peterson*).

Harvest got underway in the Finger Lakes for a number of growers this week with Constellation Brands starting to bring in Aurore and Baco noir. Some early Diamond grapes were harvested this week as well, and we are planning on picking Marquette in the Teaching Vineyard early next week.

In most years, harvest opens up sometime around the last week of August, and that seems to be an early indicator of this year's harvest. Fruit is developing at a slower pace than 2013, even though we are only about 3 days behind average with regard to growing degree days.

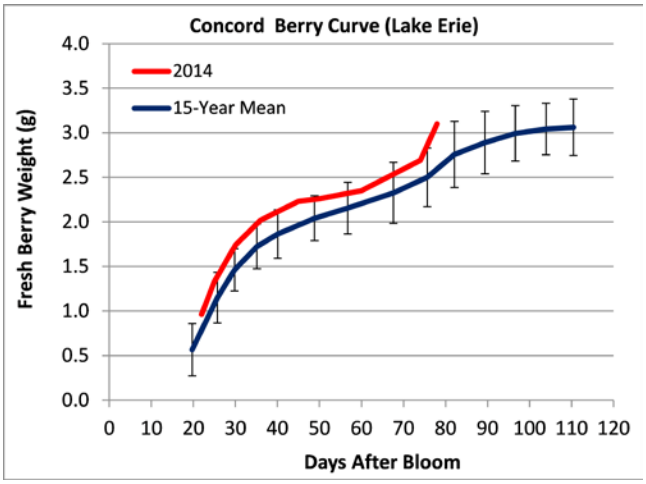
Average brix readings in last week's samples ranged anywhere from about 1-5° Brix lower than the same time last year. We have had some very warm and sunny weather in the region this week, which has hopefully helped to close that gap at least to some degree (results from this week's samples weren't available at the time this was written).

Grape yields are expected to be all over the board this year in *vinifera* varieties as a result of damage from this past winter. The impact to crop levels is highly dependent on the variety and location. In general, the southern portion of the Finger Lakes fared better than the northern areas, but by no means is that a hard and fast rule.

Certain varieties like Merlot and Gewürztraminer, which are less cold hardy, suffered more damage than others like Riesling or, somewhat surprisingly, Pinot noir. Vine injury (dead trunks and vines) is not as widespread as we feared earlier this spring, based on the results we were seeing from our bud sampling results. Many native and hybrid varieties came through the winter with minimal impact to vines or yields. In fact, we're expecting to see above average yields in natives like Concord and Niagara this year, despite the fact that we had record crops in those varieties last year.

2014 Lake Erie Concord Update:
Terry Bates

September 4, 2014. Concord fruit at the Cornell Lake Erie Research and Extension Laboratory is in rapid sugar accumulation in these first two weeks post-veraison. Juice soluble solids are increasing close to the long-term mean if not a little ahead. The noticeable difference this week is in the large jump in fresh berry weight. The high precipitation this season and high vine water status post-veraison is influencing the increase in fresh berry weight during the engustment phase of berry growth. At 30 days after bloom, we predicted final berry weight to be between 3.2-3.4 grams at harvest and it looks like the fruit is well on the way to reaching those values.



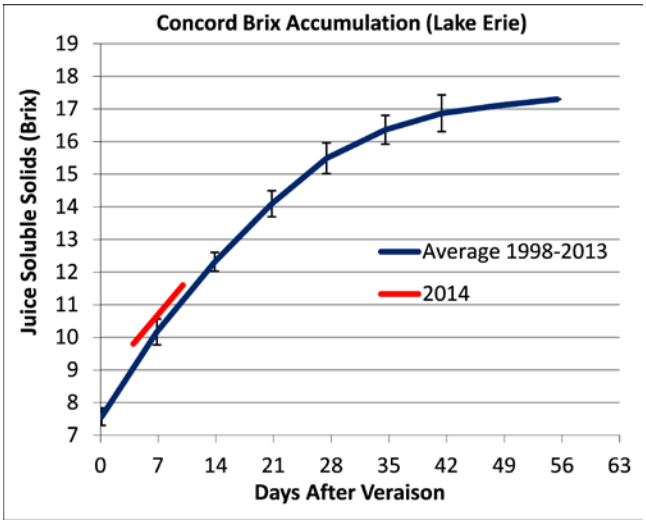


Photo by Megan Hall

Understanding and Managing Sour Rot

Wayne Wilcox

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SOUR ROT is often used as an imprecise catch-all term to describe the "snork" that takes over injured clusters near harvest when the weather becomes wet. Unfortunately, this means that different people (and fungicide labels) can use this same name to refer to a general condition that has different causes. For the rest of this discussion, I'll be referring to what I call "true" sour rot--a syndrome that involves pre-harvest cluster decay accompanied by the smell of vinegar (hence the name, duh).

Research in Ontario. Winemakers often refer to and measure the cause of this vinegar smell (acetic acid) as volatile acidity (VA). Dr. Wendy McFadden-Smith at OMAFRA on Ontario's Niagara peninsula, who has been in the forefront of sour rot research for more than 5 years now, has shown that the measure of VA in grapes harvested from different vineyards is strongly associated with the pre-harvest level of sour rot in them.

It's generally accepted that the vinegar is produced by certain acetic acid-forming bacteria (species of *Acetobacter* and *Gluconobacter*), and that wounds (birds, rain cracking, berry moth, compression in tight bunches, powdery mildew, etc.) are necessary to get the whole process started. Sometimes these bacterial infections are accompanied or followed by infections by several wild "bad" yeasts, which can produce ethyl acetate (smells like nail polish remover or varnish).

There appears to be a progression of steps involved in this whole process, which probably begins with the production of ethanol by "good" yeasts as the injured berries start leaking grape juice (ethanol is the substrate that the abovementioned bacteria convert to acetic acid, and we've found a lot of *Saccharomyces* yeasts associated with sour-rotted berries in the field), but a lot of the details are still rather murky. However, we know a lot more than we did a few years ago.

To my mind, two of the more important things that Wendy and her group have determined insofar as understanding the development of sour rot are:

(1) Berries of Pinot noir and Riesling (the primary cultivars they've worked with) do not become worrisomely susceptible to infection until they mature to a point of about 15°Brix (minor levels of infection developed from inoculations at 13° Brix, nothing at 10°); and

(2) The disease develops rapidly and severely at temperatures between 68 and 77°F; much more moderately at 59 to 68°F; and just barely chugs along at temperatures in the 50's.

These data probably make sense to Finger Lakes Pinot Noir growers who remember last September—very warm and wet after Labor Day as clusters of this cultivar were nearing harvest and rapidly building sugars, with nasty sour rot ensuing soon thereafter.

The Ontario contingent has also done a nice job of documenting that sour rot doesn't get started in the vineyards until rain occurs after berries have reached 15°Brix and temperatures are at least in the 60s. Rain probably plays a few roles in disease development, but two of the more important reasons are that it moves the causal bacteria around and into open wounds, plus it can help cause the injuries necessary for infection to occur in the first place (e.g., cracking that results as berries swell rapidly following rain events and/or become excessively compacted in tight clusters).

Another piece of the puzzle is the potential (apparent?) role of fruit flies (*Drosophila* spp.). Clusters with sour rot are typically swarmed with these insects. A prominent line of thinking over the years has been that they are opportunists coming to feed on a convenient food source; indeed, they are attracted to the smell of acetic acid. However, a study from Portugal published in 2012, while far from conclusive, suggests that these insects may actually play a direct role in the initiation and/or spread of the disease. Which caught our interest, see below.

Thus, in terms of managing sour rot, it seems that the likely strategies are:

(1) Provide a berry microclimate in the canopy less conducive to pathogen growth;

(2) Minimize berry injuries;

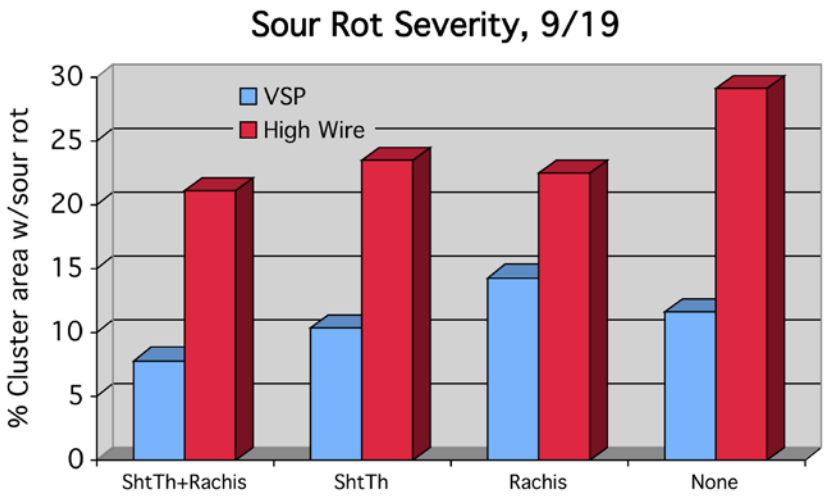
(3) Minimize pathogen populations; and

(4) Control the fruit flies if they are, indeed, a factor.

Cornell Project. Last summer, we (graduate student Megan Hall, entomologist Greg Loeb and his technician Steve Hessler, along with yours truly and technician Dave Combs) began a multi-year project to better understand sour rot and how we might be able to better manage it. One year's worth of results is just that and we might find something very different this year. But as sour rot season starts approaching, here's what we found, for what it's worth, along with some other associated information and thoughts about control options:

1. Canopy microclimate. I'll trot out data presented before from a trial conducted with other Cornell colleagues in a commercial Vignoles vineyard in the very wet fall of 2011. There were two different training systems and three canopy management systems involving shoot thinning and removal of old clusters stems or rachises (to lower Botrytis inoculum). The data and figure captions *(see top of next page)* speak for themselves.

2. Minimize injury. Beyond the obvious (do what you can to reduce damage from birds, berry moth, powdery mildew, etc.), loosening clusters is likely to reduce mechanical injuries due to compaction, and will also go a long way toward reducing *Botrytis* development as well. In fact, I'd consider loosening clusters to be the holy grail for managing the late-season bunch rots that we deal with in this part of the world; unfortunately, find-



• Effect of training system was greater than that of canopy manipulation: across all four treatments, average of 11.0% cluster area w/sour rot for VSP, 22.2% for Top Wire.
• Effects of training system and canopy manipulation were additive: best treatment = Shoot Thin + Rachis Removal/VSP (7.8%), worst treatment = Check/Top Wire (29.1%)

ing a good technique for doing so has been almost as elusive a goal.

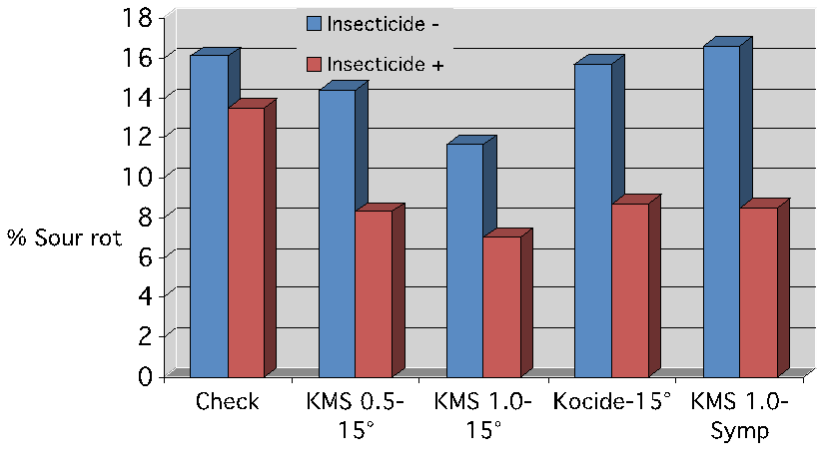
Various treatments that some have found to be effective include giberellic acid (a registered use), the growth regulator prohexidione-calcium (not registered), and prebloom leaf removal. Even the legal options have their risks and are not for the faint of heart, and need to be left for another discussion. Calcium sprays to "toughen" the grape skins haven't reduced sour rot development when tried by tried by Wendy et al., nor have Raingard or calcium chloride applied as anti-cracking treatments.

3. Minimize the pathogen population. A number of antimicrobial sprays tried in Ontario did not have any effect on sour rot development: Serenade, Pristine, vermicompost, potassium bicarbonate (e.g., Milstop, Armicarb). But what did reduce sour rot was potassium metabisulfite ("KMS", in shorthand), applied weekly at a rate of either 0.5 or 1.0% (4 or 8 lb per 100 gallons of water, respectively). Please note that this was a research trial aimed at answering a research question, and not a pesticide efficacy trial. **Although KMS is used widely in wineries both to sanitize equipment and as an additive to musts and wines to kill wild microorganisms and prevent oxidation, it is NOT registered for spraying onto vines to control diseases, either in the US or Canada**.

4. Control fruit flies. Although some growers have tried this approach, I'm not aware of any experimental data evaluating its efficacy prior to our trial last year.

2013 trial results. We looked at a combination of insecticide and antimicrobial sprays. Alternate rows in a 'Vignoles' vineyard were sprayed with the insecticide Delegate (weekly, beginning at 15° Brix), with the remaining rows receiving no insecticide. Then, within these insecticide-plus or –minus rows, we applied various antimicrobial treatments, also on a weekly schedule: (i) 0.5% KMS, beginning at 15° Brix; (ii) 1.0% KMS, beginning at 15° Brix; (iii) Kocide at 2 lb/A (registered!), beginning at 15° Brix; (iv) 1.0% KMS, beginning at first appearance of disease symptoms; (v) none (check). The results are presented below.

Bottom line: Antimicrobials without insecticide provided an average of 9% control (vs. check); antimicrobials with insecticide provided an average of 50% control (vs. check); and insecticide without antimicrobials provided 15% control.



A few comments:

- As noted, these are data from a single experiment. I'll feel more confident if we're able to repeat the results this year. However, both our results and those from Ontario indicate that some antimicrobial sprays can reduce sour rot. Because bacteria are a huge part of the complex and we haven't seen any consistent association with "filamentous" (non-yeast) fungi, I wouldn't expect fungicides to provide much benefit in our region or those with similar climates, other than reducing the number of certain injury sites (e.g., pre-harvest *Botrytis* infections). In warmer climates (California, Texas, South Australia), species of the *Aspergillus* fungus often are associated with sour rot, but what causal role they may or may not play is not that clear.
- We have other reasons to believe that fruit flies are important players in this disease complex. (It should be noted that whereas the spotted wing Drosophila is getting a lot of attention and may be a component in the mix, the "garden variety" species—*D. melanogaster*, which has always been around—seems to be the primary player from what we can tell so far). Now the question is what to do about them.
- This trial was designed as a "proof of concept"—we nuked the hell out some vines in order to see whether insecticide plus antimicrobial sprays <u>can</u> have an effect. Once we're convinced that they can, we'll start working on finding out how much less we can spray to get the same result.
- **<u>KMS is not a legal treatment</u>** and Kocide has potential copper residue issues that, although legal, might cause problems with fermentation in the winery. This year we'll also be trying Oxidate, which is expensive but legal and without potential fermentation issues. Wendy did not get benefit from it in her earlier trials, but some Finger Lakes growers tried this product last year as a "rescue" treatment and felt that it helped (of course, such observations are seldom based on comparisons with an unsprayed check row or rows). We'll also be using Mustang Max as our insecticide, as Greg thinks it will have more residual efficacy. (Note that it is labeled for use on grapes with a 1-day PHI, although fruit flies are not a listed target pest). Stay tuned.
- We're looking at a lot of other issues regarding the various microbes involved, the mechanistic role of fruit flies in this whole process, their interactions, and when these different components appear and/or start multiplying to high levels in the vineyard. We hope to have some interesting and useful information to report as the project continues.

What does this all mean for 2014? Sour rot occurs sporadically and the "state of the art" with respect to understanding and controlling it is still pretty sketchy. Individual growers will approach managing it differently depending on their own individual perceived risk and philosophy for addressing it. For now, I'd keep these concepts in mind: Disease can be initiated once rains occur after berries reach approximately 15° Brix; warm temperatures (extended periods in the upper 60's and above) are much more problematic than cooler temperatures; good canopy management will keep things from getting worse than they would otherwise; it's much easier to keep things down to a dull roar if you address a disease outbreak early than if you wait until things start blowing up in your face. Just how to do this is the $64,000 question (and that term was coined in 1950's currency!).

Knowing what we do at this point, if it was me and I had a few thousand dollars per acre of crop threatening to go south in a hurry, I'd put something on to help control the fruit flies and responsible microbes. If it was consistently warm and wet and I'd had a problem in that block before, I might start at 15° Brix before seeing symptoms and back off if the weather turned more favorable and/or disease development stayed in check. Otherwise, I'd probably keep a very close eye on my vineyards and the weather, and be ready to jump in if I saw the disease starting and the weather looked conducive for its spread. Here's to hoping that we get plenty of disease pressure in our test plots so that we can find out more about it, but that it stays away from commercial blocks this year.

Fruit Maturation Report - 9/02/2014

Samples reported here were collected on **Tuesday, September 2** 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 . - TEM **NOTE: No YAN reported this week, as analytical equipment is being serviced.**

Cabernet Franc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	E. Seneca	1.45	15.0	2.85	14.8	
Finger Lakes	9/2/2014	W. Seneca	1.32	13.0	2.72	19.4	
Finger Lakes	9/2/2014	Cayuga	1.39	14.6	2.83	14.5	
Finger Lakes	9/3/2014	W. Seneca	1.32	13.9	2.80	*	
Hudson Valley	9/2/2014	HV Lab	1.80	15.7	3.09	11.9	
Long Island	9/2/2014	LI-05	1.84	15.0	2.95	11.9	
Long Island	9/2/2014	LI-07	1.52	14.2	2.93	12.1	
Finger Lakes	9/2/2014	3309/Teaching Vyd	1.45	16.1	2.87	13.2	
Average	9/2/2014		1.51	14.7	2.88	14.0	
Prev. Sample	8/25/2014		1.22	11.3	2.70	20.8	71
'13 Average	9/3/2013		1.50	15.5	3.03	11.3	80

Catawba

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Keuka	2.26	8.0	2.45	*	
Prev Sample	8/25/2014	Keuka	2.28	6.1	2.44	*	172
'13 Sample	9/3/2013	Keuka	1.99	12.1	2.62	23.9	92

Cayuga White

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Keuka	2.58	13.8	2.73	16.7	
Finger Lakes	9/2/2014	Cayuga	2.55	14.5	2.89	12.4	
Finger Lakes	9/2/2014	Teaching Vyd	2.32	15.6	2.87	10.8	
Average	**9/2/2014**		**2.48**	**14.6**	**2.83**	**13.3**	
Prev Sample	8/25/2014		2.32	12.4	2.70	17.6	108
'13 Average	9/3/2013		2.71	15.4	3.00	10.8	178

Chardonnay

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Cayuga	1.32	15.1	2.86	15.1	
Finger Lakes	9/2/2014	W. Seneca	1.18	12.5	2.69	19.0	
Finger Lakes	9/2/2014	W. Seneca	1.65	14.4	2.92	*	
Long Island	9/2/2014	LI-03	1.82	18.3	3.10	8.9	
Finger Lakes	9/2/2014	CI 96/Teaching Vyd	1.23	14.2	2.95	9.9	
Average	**9/2/2014**		**1.44**	**14.9**	**2.90**	**13.2**	
Prev. Sample	8/25/2014		1.27	13.3	2.83	17.1	116
'13 Average	9/3/2013		1.51	16.4	3.10	10.6	149

Concord

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Keuka	3.18	9.9	2.77	19.4	
Finger Lakes	9/2/2014	W. Canandaigua	3.18	11.8	2.79	16.3	
Lake Erie	9/2/2014	Portland	2.99	11.1	2.85	17.6	
Average	**9/2/2014**		**3.11**	**10.9**	**2.80**	**17.8**	
Prev Sample	8/25/2014		**2.75**	**8.9**	**2.62**	**23.2**	**162**
'13 Sample	**9/3/2013**		**2.80**	**12.2**	**2.96**	**12.4**	**191**

Corot Noir

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Teaching Vyd	1.75	13.8	2.87	13.4	
Prev Sample	8/25/2014	Teaching Vyd	1.51	11.5	2.70	19.7	41

Gruner Veltliner

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Teaching Vyd	1.49	15.2	3.08	8.7	
Prev Sample	8/25/2014	Teaching Vyd	1.31	13.0	2.88	13.9	223

Lemberger

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Keuka	1.65	14.4	2.85	13.2	
Finger Lakes	9/2/2014	Teaching Vyd	1.86	16.3	2.99	11.6	
Average	**9/2/2014**		**1.75**	**15.4**	**2.92**	**12.4**	
Prev. Average	8/25/2014		1.36	12.9	2.78	19.2	146
'13 Sample	9/3/2013	Keuka	1.71	18.4	2.99	8.4	36

Malbec

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Long Island	9/2/2014	LI-06	2.57	14.5	2.96	13.9	
Prev Sample	8/25/2014	LI-06	2.06	12.1	2.81	19.6	122
'13 Sample	9/3/2013	LI-06	2.39	16.4	3.13	12.6	155

Marquette

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Teaching Vyd	1.09	22.7	2.98	12.9	
Prev. Average	8/25/2014		1.05	19.8	2.91	15.8	181
'13 Sample	*Not sampled*						

Merlot

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Hudson Valley	9/2/2014	HV Lab	1.87	8.5	3.16	10.5	
Long Island	9/2/2014	LI-04	2.01	15.1	3.16	8.9	
Long Island	9/2/2014	LI-08	1.61	15.2	3.02	12.7	
Average	**9/2/2014**		**1.83**	**12.9**	**3.11**	**10.7**	
Prev. Average	8/25/2014		1.63	11.0	2.88	15.5	103
'13 Average	9/3/2013		1.68	17.2	3.32	7.6	131

Niagara

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Lake Erie	9/2/2014	Portland	3.78	11.6	2.95	13.3	
Prev Sample	8/25/2014	Portland	3.56	9.5	2.70	20.7	164
'13 Sample	9/3/2013	Portland	3.95	12.5	3.07	9.9	270

Noiret

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Hudson Valley	9/2/2014	HV Lab	1.81	13.6	3.01	12.4	
Lake Erie	9/2/2014	Fredonia	1.77	15.3	2.92	15.6	
Average	**9/2/2014**		**1.79**	**14.5**	**2.97**	**14.0**	
Prev Sample	8/25/2014		1.65	12.5	2.89	19.0	255
'13 Sample	9/3/2013		1.71	14.1	3.12	12.7	235

Pinot Noir

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	E. Seneca	1.40	16.5	2.98	12.3	
Prev Sample	8/25/2014	E. Seneca	1.17	14.0	2.87	16.5	108

'13 Sample	9/3/2013	E. Seneca	1.45	17.2	3.05	8.9	43

Riesling

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	E. Seneca	1.06	11.1	2.68	20.4	
Finger Lakes	9/2/2014	E. Seneca	1.52	14.2	2.74	*	
Finger Lakes	9/2/2014	W. Seneca	1.19	13.2	2.70	17.9	
Finger Lakes	9/2/2014	E. Seneca	1.48	10.5	2.75	17.9	
Finger Lakes	9/2/2014	CL 90 Cayuga	1.20	10.0	2.75	19.5	
Finger Lakes	9/2/2014	Keuka	1.18	12.6	2.76	18.4	
Finger Lakes	9/2/2014	W. Seneca	1.48	12.0	2.72	*	
Finger Lakes	9/2/2014	W. Canandaigua	1.58	10.6	2.67	21.0	
Finger Lakes	9/2/2014	W. Seneca	1.40	11.2	2.75	21.3	
Hudson Valley	9/2/2014	HV Lab	1.73	14.4	3.07	13.0	
Lake Erie	9/2/2014	Portland	1.44	12.6	2.86	16.4	
Long Island	9/2/2014	LI-01	1.27	13.4	2.92	12.3	
Finger Lakes	9/2/2014	3309/Teaching Vyd	1.22	14.3	2.79	14.7	
Average	**9/2/2014**		**1.37**	**12.3**	**2.78**	**17.5**	
Prev Sample	8/25/2014		1.06	9.1	2.66	24.7	142
'12 Sample	9/3/2013		1.34	14.6	2.93	12.6	112

Sauvignon Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Long Island	9/2/2014	LI-02	1.27	17.1	3.01	10.1	
Prev Sample	8/25/2014	LI-02	1.08	14.7	2.81	16.0	79
'12 Sample	9/3/2013	LI-02	1.31	20.0	3.19	8.7	143

Seyval Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Cayuga	1.85	16.6	2.97	10.5	
Lake Erie	9/2/2014	Portland	1.76	15.7	2.92	11.3	
Average	**9/2/2014**		**1.80**	**16.2**	**2.95**	**10.9**	
Prev Sample	8/25/2014		1.58	13.9	2.86	14.9	128
'13 Sample	9/3/2013	Cayuga	1.51	18.4	3.15	7.1	91

Traminette

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Keuka	1.80	14.2	2.77	21.4	
Hudson Valley	9/2/2014	HV Lab	1.93	13.5	2.93	13.9	
Lake Erie	9/2/2014	Portland	1.78	12.6	2.79	20.2	
Average	**9/2/2014**		**1.84**	**13.4**	**2.83**	**18.5**	
Prev Sample	8/25/2014		1.57	9.6	2.67	22.0	131
'13 Sample	9/3/2013		1.83	14.7	2.97	12.0	91

Vidal Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/2/2014	Teaching Vyd	1.73	14.7	2.86	14.1	
Prev Sample	8/25/2014	Teaching Vyd	1.76	12.5	2.78	18.6	118

Vignoles

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	8/25/2014	High Wire Keuka					
Finger Lakes	9/2/2014	W. Seneca	1.69	16.9	2.85	17.7	
Average			1.69	16.9	2.85	17.7	
Prev Sample	8/25/2014		1.47	12.3	2.68	24.8	155

Jim O'Connell: Our Newest Contributor to *Veraison to Harvest*

Tim Martinson

Jim O'Connell joined Cornell Cooperative Extension's Eastern New York Horticulture Program in 2012 as Berry and Grape Resource Educator. Based at the Hudson Valley Laboratory, Jim has greatly ramped up extension publications this year, starting the Eastern NY Commercial Horticulture Grape newsletter and a blog. Jim is also our newest regular contributor to *Veraison to Harvest,* replacing Steve Hoying, who retired this past July. He covers the Hudson Valley region from Rockland County to Columbia County.

Jim's interest in agriculture started at UNH, where he worked at the Woodman Horticulture Research Farm as a research assistant in both vegetable and fruit crops. From there Jim's love and knowledge of agriculture grew, eventually taking him to Massachusetts where he worked as a research technician with cranberries. Jim made the move to New York in 2012 and started working for Cornell Cooperative Extension in June. Along with other small fruit educators, Jim has helped to educate berry growers about the invasive vinegar fly spotted wing *Drosophila*. Jim has also worked with grape growers to educate them on good site selection and best management practices for their vineyards. He continues to expand his knowledge of both small fruits and grapes, and is always interested in grower feedback.

We welcome Jim to Cornell's grape extension team, and to *Veraison to Harvest.*

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