Veraison to Harvest

Statewide Vineyard Crop Development Update #6

Cornell University Cooperative Extension

October 9, 2015

Edited by Tim Martinson and Chris Gerling

Around New York...

Statewide *(Tim Martinson)*

Of the 25 grape cultivars we sample for *Veraison to Harvest*, all but nine have been harvested to date. Of the 78 vineyards that we began the season with, 48 have been harvested. Concord harvest is about at its midpoint, and most of the whites except for Riesling are 'in'. What remains in our sample group is Cabernet Franc, Catawba, Corot noir, Lemberger, Malbec, Merlot, Noiret, Traminette and Riesling.

Fruit maturity indices (*see Fruit Maturity Table*, pp. 5-8) for remaining blocks showed little movement this past week, indicating that we are nearing the end of harvest season. I expect that most of what remains will be harvested during the coming week.

At Clayton, we harvested Frontenac that had been frosted in late May, with the main crop coming from secondaries that bloomed during the first and second week of July. A few 'primary' clusters remained, and we sampled both. Sugars in the '2nd crop' almost caught up to the '1st crop', but acids were still 3-5 g/l higher in the late-maturing clusters from secondary buds (See photo below).

Next week is likely to be our last 'sampling week', which we will follow up with our final wrapup in two weeks.

Frontenac from 'first crop' (left) and 'second crop' (right) was harvested at Clayton, NY on Tuesday, October 6.

Photo by Tim Martinson

Cabernet Franc shoot with 16 clusters on the main shoot and 9 lateral shoots, harvested from a Seneca Lake vineyard. See page 9 for brix, pH, and titratable acidity of each of the 16 clusters.

Photo by Tim Martinson

Finger Lakes (*Hans Walter-Peterson*)

By now, most vineyards are past the halfway point of harvest in the Finger Lakes, and there are even a couple who are done with their season already. The focus of much of the harvest right now is on Riesling, with harvest cranking up in many vineyards over the past week due to both the fruit's ripeness and also the recent rains that have come through the area, raising some concerns about bunch rots forming. Fortunately, it seems that much of the bunch rot that is out there is "clean" Botrytis, with little if any sour rot developing at the same time. What Merlot is out there this year is also being picked this week, along with the last blocks of Lemberger fruit. Some early Cabernet Franc was picked for rosé production a week or two ago, but most is still hanging out there. I suspect we'll see some loads start to arrive at crush pads beginning next week.

Corot Noir and Noiret are both mid to "late-ish" season red varieties, and are starting to make their way to crush pads. Yields in both of these varieties appears to be good in the blocks that I have seen. Concord harvest continues to chug along as well. Sugar levels appear to be high enough that some dilution by the recent rain shouldn't hurt growers' ability to meet their processors' standards. There's still plenty of fruit left to pick, so Concord harvest should be continuing for a couple more weeks.

After a bit of a lull, harvest will pick up at the Teaching & Demonstration Vineyard again next week, when we'll be harvesting Corot Noir, Riesling and Cabernet Franc. That will leave Vidal as the last variety to be picked for the year.

Long Island (*Alice Wise*)

Last week saw an end to the season-long drought on Long Island with 3.5" of rain over the course of several days. This actually perked up vines on drier sites as some had droopy foliage and basal leaf yellowing. This was a different system than the hurricane lurking offshore. Fortunately that veered out into the Atlantic.

There were fears that the rainfall would result in new *Botrytis* infections. Mainly red fruit is hanging now and it looks remarkably clean. In an e-mail chat with grape pathologist Wayne Wilcox, he had this to say: 'My guess is that your lack of *Botrytis* following the recent wet weather is a combination of three factors: (1) Good vineyard management; (2) The cool temperatures following the wet weather; and (3) The very dry season that you had until very recently, which means that (i) there were few to no latent infections (the ones that occur during and shortly after flowering) waiting to "bloom" after preharvest rains--which is what they do--and (ii) there were few other sources of Botrytis spores capable of initiating new infections during the prolonged wet weather. My feeling is that all three of these factors were important, but that #1 and #3 probably trump #2. Unfortunately, you only have control over #1.'

Otherwise, the pace of harvest slowed this week as many businesses are finished or close to finished with whites. With another stretch of nice weather ahead, growers will allow reds to hang another week or more. We berry sampled a few experiments in the research vineyard thinking that fruit might be compromised if a storm hit. Merlot ranged from 22-23° Brix, 5-6 g/l TA and 3.4-3.5 pH. The fruit looks good thus we are cautiously optimistic about the quality of red fruit.

On October 4-5, Cornell viticulturist Justine Vanden Heuvel and enology instructor Kathy Arnink brought their undergraduate viticulture class to Long Island. Hats off to these ladies for exposing their students to the different faces of the NY grape and wine industry. They visited several businesses each day including the Cornell research vineyard (see photo).

Lake Erie (*Luke Haggerty)*

We received another week of ideal harvest weather. Although a bit cooler than recent weeks, with temperatures in the 50s and 60s, no one is complaining. The end of this week will mark the third full week of Concord harvest, and on most years, this is the mid-point. Many growers are anxious to see how long area processors are planning to stay open. Most processors started pressing Concords September 21st, and with great weather and few cancelations, harvest could be wrapping up early this year.

Here at the Portland lab we are still harvesting Concords. Last week we sent two loads off to the press with brix levels coming in at 15.9 and 16.1. We only harvested one load this week and plan on picking our last load of the season next Thursday. The crew has kept busy pounding posts and stringing wire in our newly planted 4 acre Concord addition.

Hudson and Champlain Valleys (*Jim O'Connell and Anna Wallis)*

Hudson Valley. The cooler, more seasonal fall weather appears to be in place for the remainder of the season. Long range forecasts are predicting daytime temperatures in the 70s and night time temperatures in the 40s. Hurricane Joaquin came and went, with no reported damages. Rainfall totaled 2.79" at the Hudson Valley Research Lab in Highland. With the onset of better weather, growers have resumed harvesting, but are checking fruit for splits as well as the presence of any Drosophila in or around these damage fruits.

The harvest still continues for most throughout the Hudson Valley. This week, growers were harvesting Chardonnay and Chelois, as well as Noiret and Corot Noir. At the Hudson Valley Research Lab, Noiret and Pinot Gris were harvested at the end of last week. Merlot and Chardonnay were harvested at the start of this week.

There were a few reports of some varieties being close, but not quite ready. The weather for the most part looks good in the coming week, and growers

plan to let these borderline varieties hang a little longer to improve quality.

Champlain Valley. Much cooler temperatures this past week have brought an end to the season. Highs have mostly been in the upper 50's and lows dipping to the mid-30's. At higher elevations, farther from the lake, frost warnings were issued, but no damage has been reported.

Fortunately much of the harvest was complete before the rain received last week. Weather stations across Northeastern NY recorded over 2.5" of rain. After more rain today, it is expected to be clear and a bit warmer in the region. Excellent conditions to wrap things up in the vineyard, winterize sprayers, and continue processing the harvest.

Making the Most Out of the Harvest in the Hudson Valley

Jim O'Connell

Magnanini Winery in Wallkill NY is a family owned and operated business. The husband and wife team of Richard and Rachel Magnanini along their sons Robert and David run the daily operations of both the vineyard and the onsite restaurant. Wine, made from the grapes grown onsite has been part of the family business since Rick first began planting vines over 30 yrs ago.

In more recent years, they have expanded from wine making, venturing into the production of spirits. After the grapes are pressed for wine, the leftover seeds, skins, etc. are normally a waste product left to make compost. In this multistep process, flavors are stripped from the pomace and refined to produce a dessert liquor. Robert, pictured here next to his still, hopes to expand even further, trying his hand at grain alcohols next.

Robert Magnanini operating the still at Magnanini Winery in Wallkill, NY

Photo by Jim O'Connell

Grape pomace churning in the still.

Photo by Jim O'Connell

Cornell students visited vineyards on the North Fork of Long Island, as part of the 'Wines and Vines' class. Instructor Dr. Justine Vanden Heuvel (back row, 2nd from left) led the trip, and Suffolk CCE Grape Specialist Alice Wise (2nd from left, front row) hosted the group and organized visits with area growers, and a tour of research vineyards at the Long Island Horticultural Research and Extension Center.

Photo by Mark Bridgen

Cornell Viticulture and Enology Students Visit Long Island

Justine Vanden Heuvel and Alice Wise

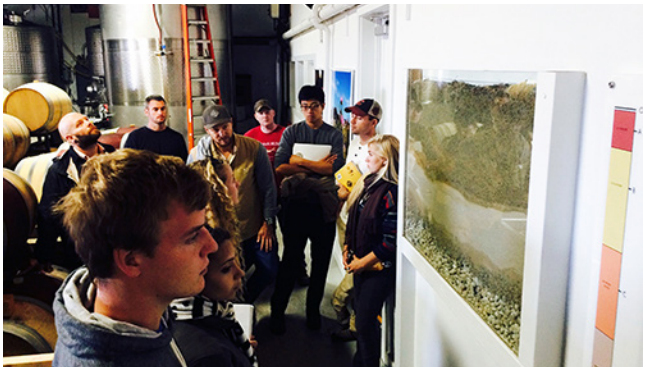
The Cornell 'Grapes to Wines' class (a sophomore level course designed for students majoring or minoring in Viticulture and Enology) travelled to Long Island Oct 4-5 to gain first-hand knowledge about grape and wine production in the region. Students visited with Sam McCullough at The Lenz Winery, Dave Thompson and Trent Preszler at Bedell Cellars, Peter Gristina of Mudd Vineyard Management, Barbara Shinn and David Paige at Shinn Estate Vineyards, and Alice Wise at Cornell's Long Island Horticultural Research and Extension Center.

Student Sarah Todd evaluates soundness of grapes with Barbara Shinn at Shinn Estate Vineyards.

Photo by Justine Vanden Heuvel

Viticulturist Alice Wise describes ongoing cultivar evaluation trials at Cornell's Long Island Horticultural Research and Extension Center.

Photo by Ming-Yi Chou



Students study a 1:1 soil profile in the cellar with Bedell's Trent Preszler.

Photo by Justine Vanden Heuvel

Fruit Composition Report - 10/9/2015

Samples reported here were collected on **Monday, October 5.** Where appropriate, sample data from 2014, averaged over all sites is included. Tables from 2014 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).

Cabernet Franc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	Wayne County	1.14	20.1	3.13	8.0	107
Finger Lakes	10/5/2015	W. Seneca	1.39	21.5	3.17	7.0	21
Finger Lakes	10/5/2015	Cayuga	1.42	22.0	3.49	5.5	54
Finger Lakes	10/5/2015	E. Seneca	1.53	21.2	3.21	8.5	47
Finger Lakes	10/5/2015	Geneva	HARVEST				
Hudson Valley	10/5/2015	HVRL Vineyard Highland	1.31	16.7	3.31	6.2	49
Long Island	10/5/2015	LI-09	1.58	21.8	3.73	5.5	77
Long Island	10/5/2015	LI-05	2.11	21.6	3.65	4.3	68
Finger Lakes	10/5/2015	Dresden	1.41	23.9	3.52	4.5	30
Average	**10/5/2015**		**1.49**	**21.1**	**3.40**	**6.2**	**57**
Prev. Sample	*9/28/2015*		*1.55*	*21.0*	*3.35*	*6.7*	*70*
'14 Average	*10/7/2014*		*1.78*	*20.9*	*3.25*	*7.1*	*40*

Catawba

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	Keuka	2.97	17.6	3.00	10.0	108
Prev Sample	*9/28/2015*	*Keuka*	*2.87*	*17.7*	*2.96*	*10.2*	*92*
'14 Sample	*10/7/2014*	*Keuka*	*3.02*	*17.1*	*2.90*	*17.5*	*101*

Cayuga White

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/28/2015	Keuka	HARVEST	.	.	.	.
Finger Lakes	9/28/2015	Cayuga	HARVEST	.	.	.	.
Finger Lakes	9/28/2015	Dresden	HARVEST	.	.	.	.
Final Sample	*9/21/2015*		*2.96*	*19.3*	*3.32*	*7.4*	*237*
'14 at Harvest	*9/23/2014*		*2.78*	*17.4*	*2.92*	*13.1*	*138*

Chardonnay

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/21/2015	Cayuga	HARVEST	.	.	.	.
Finger Lakes	9/21/2015	W. Seneca	HARVEST	.	.	.	.
Finger Lakes	9/28/2015	Dresden Cl 96	HARVEST	.	.	.	.
Long Island	9/28/2015	LI-03	HARVEST	.	.	.	.
Final Sample	*9/28/2015*		*1.72*	*22.4*	*3.45*	*6.1*	*94*
'14 Average	*10/7/2014*		*1.86*	*20.3*	*3.20*	*8.4*	*87*

Concord

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	Keuka	3.70	16.8	3.35	6.5	179
Finger Lakes	10/5/2015	W. Canandaigua	HARVEST				
Lake Erie	10/5/2015		HARVEST				
Lake Erie	10/5/2015		HARVEST				
Average	**10/5/2015**		**3.70**	**16.8**	**3.35**	**6.5**	**179**
Prev Sample	*9/28/2015*		*3.67*	*16.5*	*3.29*	*7.1*	*154*
'14 Sample	*10/7/2014*		*3.64*	*16.7*	*3.24*	*8.73*	*163*

Corot Noir

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	Dresden	2.47	19.0	3.41	6.0	122
Prev Sample	*9/28/2015*	*Dresden*	*2.44*	*18.1*	*3.38*	*6.8*	*120*
'14 At Harvest	*9/30/2014*	*Teaching Vyd*	*2.34*	*18.2*	*3.22*	*7.9*	*73*

Frontenac

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Champlain Valley	10/5/2015	Willsboro	HARVEST				
Thousand Islands	10/5/2015	Clayton	HARVEST				
Thousand Islands	10/5/2015	Clayton	1.17	23.5	3.2	17.4	441
Thousand Islands	10/5/2015	Clayton	1.32	22.3	3.07	21.1	353
(no average calc)							
Prev Sample	*9/28/2015*		*1.11*	*23.9*	*3.20*	*17.4*	*711*

* 2nd crop sample not included in average, late due to spring frost

Frontenac Gris

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Champlain Valley	9/28/2015	Willsboro	HARVEST				
Finger Lakes	9/21/2015	Trumansburg	HARVEST				
Final Sample	**9/21/2015**	**Willsboro**	**1.26**	**24.6**	**3.01**	**13.5**	**281**
Prev Sample	*9/21/2015*		*1.26*	*24.6*	*3.01*	*13.5*	*281*

Gruner Veltliner

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/14/2015	Dresden	HARVEST				
Final Sample	*9/8/2015*	*Dresden*	*1.76*	*19.2*	*3.23*	*5.7*	
'14 at Harvest	*9/16/2014*	*Teaching Vyd*	*1.63*	*18.0*	*3.20*	*6.8*	*139*

La Crescent

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/21/2015	Geneva	HARVEST				
Thousand Islands	9/21/2015	Clayton	HARVEST				
Champlain Valley	9/21/2015	Willsboro	HARVEST				
Finger Lakes	9/21/2015	Trumansburg	HARVEST				
Final Sample	*9/21/2015*		*1.52*	*21.5*	*3.00*	*17.8*	*149*

Lemberger

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	Keuka	1.64	22.9	3.18	7.5	47
Finger Lakes	10/5/2015	Dresden	HARVEST				
Average	**10/5/2015**		**1.64**	**22.9**	**3.18**	**7.5**	**47**
Prev. Average	*9/28/2015*		*1.81*	*22.4*	*3.26*	*7.5*	*75*
'14 Sample	*10/7/2014*		*1.92*	*22.5*	*3.11*	*7.8*	*26*

Malbec

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Long Island	10/5/2015	LI-06	2.60	21.8	3.63	6.4	119
Prev Sample	*9/28/2015*		*2.76*	*22.1*	*3.60*	*6.6*	*109*
'14 Sample	*10/7/2014*	*LI-06*	*2.69*	*21.0*	*3.54*	*6.0*	*47*

Marquette

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Champlain Valley	9/28/2015	Willsboro	HARVEST	.	.	.	.
Finger Lakes	9/28/2015	Keuka	HARVEST	.	.	.	.
Finger Lakes	9/28/2015	Trumansburg	HARVEST	.	.	.	.
Finger Lakes	9/28/2015	Dresden 3309	HARVEST	.	.	.	.
Finger Lakes	9/28/2015	Dresden Own	HARVEST	.	.	.	.
Lake Erie	9/28/2015		HARVEST	.	.	.	.
Thousand Islands	9/28/2015	Clayton	HARVEST				
Thousand Islands*	9/28/2015	Clayton	HARVEST				
Thousand Islands	9/28/2015	Clayton	HARVEST	.	.	.	.
Final Sample	*9/28/2015*		*1.21*	*25.1*	*3.18*	*15.0*	*432*
'14 at Harvest	*9/2/2014*	*Harvest 2014*	*1.09*	*22.7*	*2.98*	*12.9*	

* 2nd crop sample not included in average, late due to spring frost

Merlot

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Hudson Valley	10/5/2015	HVRL Highland	HARVEST				
Long Island	10/5/2015	LI-10	1.69	21.6	3.76	5.2	90
Long Island	10/5/2015	LI-04	2.10	21.9	3.72	5.7	71
Average	**10/5/2015**		**1.89**	**21.8**	**3.74**	**5.4**	**80**
Prev Sample	*9/28/2015*		*1.80*	*20.9*	*3.64*	*5.4*	*93*
'14 Average	*10/7/2014*		*2.03*	*20.3*	*3.55*	*5.7*	*66*

Niagara

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Lake Erie	9/28/2015	Portland	HARVEST				
Lake Erie	9/21/2015	Fredonia	HARVEST				
Final Sample	*9/21/2015*		*3.53*	*16.0*	*3.29*	*7.7*	*110*
'14 at Harvest	*9/23/2014*	*Portland*	*4.40*	*15.1*	*3.21*	*6.6*	*172*

Noiret

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	Wayne County	1.73	18.6	3.19	9.0	238
Hudson Valley	10/5/2015	HVRL Highland	HARVEST				
Average	**10/5/2015**		**1.73**	**18.6**	**3.19**	**9.0**	**238**
Prev Sample	*9/28/2015*		*1.75*	*18.9*	*3.31*	*9.1*	*232*
'14 Sample	*10/7/2014*		*2.03*	*19.3*	*3.31*	*9.3*	*142*

Pinot Noir

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/28/2015	E. Seneca	Harvested	.	.	.	.
Final Sample	*9/21/2015*	*E. Seneca*	*1.28*	*21.9*	*3.29*	*7.3*	*93*
'14 at Harvest	*9/23/2014*	*E. Seneca*	*1.39*	*20.5*	*3.12*	*8.9*	*88*

Riesling

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	E. Seneca	HARVEST				
Finger Lakes	10/5/2015	Wayne County	1.32	17.7	2.99	9.8	145
Finger Lakes	10/5/2015	Dresden r3309	1.33	20.1	3.11	7.0	38
Finger Lakes	10/5/2015	Keuka	1.36	19.8	3.04	8.8	54
Finger Lakes	10/5/2015	E Seneca 90	1.40	21.4	3.07	7.2	18
Finger Lakes	10/5/2015	W. Seneca	1.47	19.0	2.97	9.5	24
Finger Lakes	10/5/2015	E Seneca 239	1.49	21.4	3.04	7.4	19
Finger Lakes	10/5/2015	W. Canandaigua	1.60	19.7	3.01	10.2	81
Finger Lakes	10/5/2015	E Seneca 198	1.61	19.9	3.05	6.8	21
Finger Lakes	10/5/2015	CL 90 Cayuga	1.62	19.6	3.05	8.9	77
Finger Lakes	10/5/2015	E. Seneca	1.71	18.0	3.04	8.5	54
Finger Lakes	10/5/2015	E. Seneca	1.78	19.5	3.14	8.9	110
Finger Lakes	10/5/2015	W. Seneca	HARVEST				
Finger Lakes	10/5/2015	Geneva	HARVEST				
Hudson Valley	10/5/2015	HVRL Highland	1.67			6.5	0
Average	**10/5/2015**		**1.53**	**19.6**	**3.05**	**8.3**	**53**
Prev. Sample	*9/28/2015*		*1.55*	*19.1*	*3.05*	*8.6*	*64*
'14 Sample	*10/7/2014*		*1.78*	*18.9*	*3.09*	*9.7*	*88*

Sauvignon Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Long Island			HARVEST				
Final Sample	*9/14/2015*	*LI-02*	*1.43*	*20.0*	*3.29*	*6.7*	*65*
'14 at Harvest	*9/16/2014*	*LI-02*	*1.44*	*19.5*	*3.16*	*7.5*	*63*

Seyval Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/8/2015	Cayuga	HARVEST				
Lake Erie	9/8/2015	Fredonia	HARVEST				
Final Sample	*8/31/2015*		*1.63*	*14.9*	*2.98*	*12.1*	
'14 at Harvest	*9/9/2014*		*1.82*	*18.2*	*3.04*	*9.0*	*148*

St Croix

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/15/2015	Geneva	HARVEST				
Final Sample	*9/8/2015*	*Geneva*	*2.03*	*18.9*	*3.23*	*9.3*	

Traminette

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/5/2015	Keuka	2.08	19.3	3.00	10.8	246
Hudson Valley	10/5/2015	HVRL Highland	HARVEST				
Average	**10/5/2015**		**1.76**	**19.5**	**3.02**	**8.5**	**100**
Prev Sample	*9/28/2015*	*Keuka*	*2.09*	*19.8*	*2.97*	*10.6*	*267*
'14 Sample	*10/7/2014*		*2.13*	*21.1*	*3.15*	*9.2*	*145*

Vidal Blanc

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes							
Final Sample	*9/28/2015*	*Dresden*	*2.07*	*21.7*	*3.20*	*8.4*	*73*
'14 Sample	*10/7/2014*	*Teaching Vyd*	*2.15*	*22.8*	*3.27*	*8.5*	*85*

Vignoles

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/28/2015	VSP Keuka	HARVEST	.	.	.	.
Finger Lakes	10/5/2015	W. Seneca	HARVEST				
Final Sample	*9/28/2015*	*W. Seneca*	*1.58*	*23.5*	*3.10*	*15.2*	*196*
'14 at Harvest	*9/30/2014*		*1.88*	*22.6*	*2.97*	*16.1*	*207*

Zweigelt

Region	Harvest Date	Description	Ber. Wt. g.	% Brix	pH	TA g/L	YAN (ppm)
Finger Lakes			HARVEST				
Final Sample	*9/14/2015*	*Dresden*	*1.87*	*19.6*	*3.18*	*6.3*	*113*
'14 at Harvest	*9/16/2014*	*Teaching Vyd*	*1.82*	*17.0*	*3.17*	*7.3*	*149*

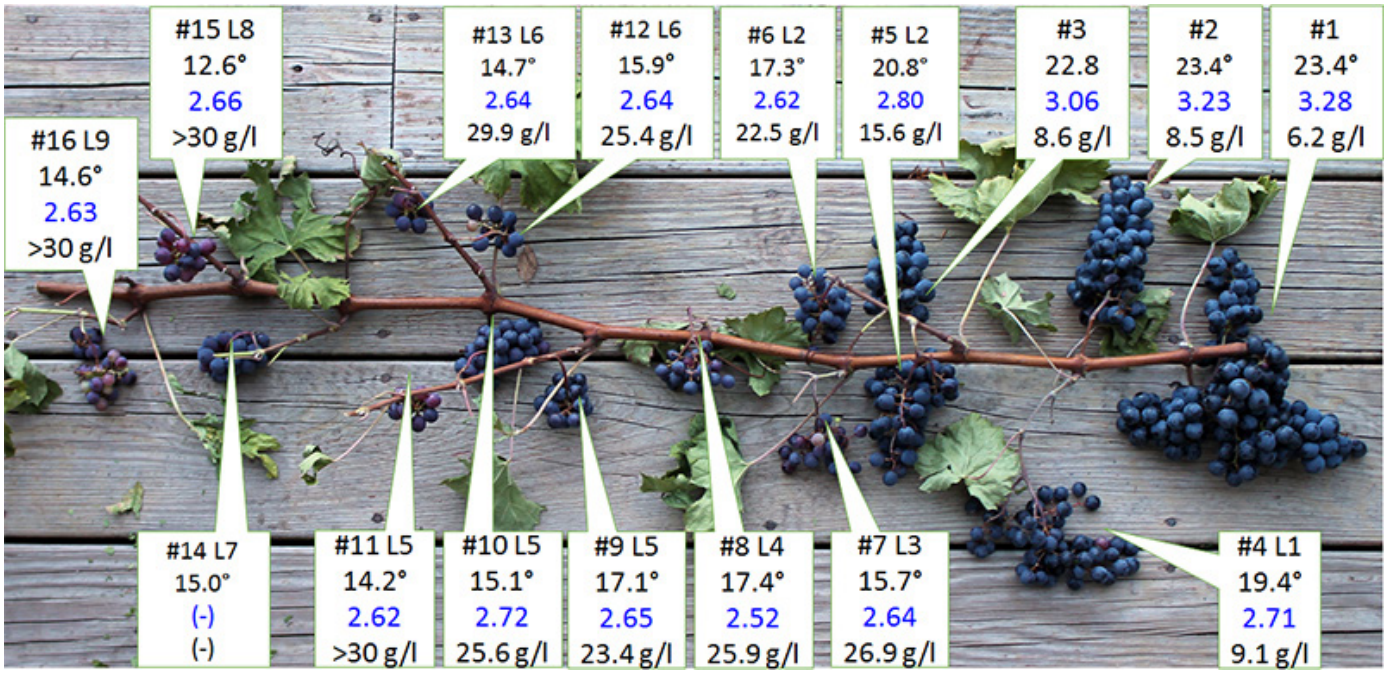
Sixteen Clusters on One Shoot

Tim Martinson, Chrislyn Particka, and Chris Gerling

I found this Cabernet Franc shoot in a vineyard near Seneca Lake. In addition to three clusters on the main shoot, this single shoot had nine persistant laterals (Labeled L1-L9) with 1 to 3 clusters each, for a total of 16 clusters **(!)**. My question: How does this impact fruit chemistry? To find out, we weighed all the clusters and measured soluble solids (°brix), pH (in blue) , and titratable acidity individually. Overall it should be no surprise that as we move from base to shoot tip soluble solids (range: 12.6-23.4 °brix) and pH (range: 2.63 - 3.28) goes down, and titratable acidity (6.2 to >30 g/l) goes up. The three clusters on the main shoot (#1,#2, and #3) represented 56% of the weight, while the lateral clusters (#4-16) made up 34% of total weight. Bottom line: Having the 32% 'extra' yield represented by the 13 lateral clusters (Table 1) reduced soluble solids by 2.5 °brix, lowered pH from 3.2 to 3.0, and almost doubled the TA from 7 to 12 g/l. Bottom line: Laterals widen the range of variability in ripeness dramatically.

Table 1. Maturity indices by cluster position.

Portion	°brix	pH	TA (g/l)
Main shoot (#1-3)	23.3	3.24	7.0
Laterals (#4-16)	17.5	2.70	20.7
Entire Shoot	**20.8**	**3.01**	**12.8**



Photos by Tim Martinson

Uncork New York! www.newyorkwines.org

This newsletter was made possible with support from the New York Wine and Grape Foundation, the Lake Erie Regional Grape Program, Inc. and the New York State Agricultural Experiment Station at Cornell University.

Veraison to Harvest is a joint publication of:

Cornell Enology Extension Program

Statewide Viticulture Extension Program

Long Island Grape Program

Finger Lakes Grape Program

Lake Erie Regional Grape Program

Eastern New York Regional Horticulture Program