Veraison to Harvest

Statewide Vineyard Crop Development Update #8

October 18, 2013

Cornell University Cooperative Extension

Edited by Tim Martinson and Chris Gerling

Around New York...

Statewide *(Tim Martinson).*

In terms of acreage (19,000 in NY, another 6,000 in Erie County PA) and tonnage (120K) Concord is by far the largest grape crop in New York – and this year growers may be harvesting a record crop. This week we focus (see article pp. 3-5) on the key role that mechanical crop thinning has played in helping growers meet processors' brix standards for ripeness. With 30 to 50% of the acreage in an overcrop situation, thinning helped growers harvest in a timely manner and avoid load rejections for failing to meet minimum brix levels needed to produce quality grape juice.

With samples collected from 20 blocks this week out of 48 we started with, we're close to the tail end of harvest. Six of 8 Cabernet franc blocks are still in the field; last year at this time, 75% had been harvested. Brix rose by 0.5°, no change in TA or pH. Our lone Catawba block gained 1.7 ° Brix this week, and acids dropped by 0.8 g/l. Lemberger and Malbec have reached brix (23.3) and acidity levels seen last year – but two weeks behind last year. The one remaining Merlot block on Long Island has caught up to last year's average at harvest. Seven of 12 Riesling blocks in our sample have been harvested, brix and TA didn't move this week. This years average of 17.8 brix is 2° lower than our final sample last year (taken around October 1 – two weeks earlier).

Next week's samples will be the last. The extended forecast is calling for a hard frost to hit Geneva by Friday or Saturday next week. We will follow up in two weeks with our final *Veraison to Harvest* issue.

Lake Erie (*Luke Haggerty).*

We have continued to see wet conditions in the Lake Eire with more rain in the forecast. The presence of standing water is becoming a common observation in areas with heavier soils. With high disease pressure caused by the wet conditions most of the area wine grapes have been harvested earler than they normally are. The extended forecast is calling for more rain next week and like last week growers are putting in long days to stay ahead of the weather.

This week we harvested Riesling at the Lake Erie Research and Extension Laboratory and continue to work on the Concord crop. Leaves on most area vineyards have started to yellow letting us know that they are getting ready to start shutting down.

Finger Lakes Grape Program's Hans Walter-Peterson (L) and Mike Collizi (R) harvesting Cabernet Franc at White Springs Vineyard near Geneva on October 18. Enology Extension associate Chris Gerling is seen in background (Yes, even enologists occasionally appear in vineyards). They are harvesting the 3rd year of an experiment testing the effect of fungicides applied just before their designated preharvest interval (PHI) on fermentation and wine attributes.

Photo by Tim Martinson

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

Harvest continues in Long Island vineyards with many blocks of red varieties coming off. Vineyard managers and winemakers both agree that fruit quality is really wonderful.

In the research vineyard, we harvested our last white white this week – Petit Manseng. This late ripening white has loose clusters and small berries with thick skins. In three years of harvest, we have not seen any cluster rot. The acids hang around a long time, thus the need to let flavors develop and allow the acids to moderate naturally. We also harvested Merlot, Syrah, Malbec and Sangiovese. Merlot skins were starting to slip and berries were softening, two signs of ripe fruit. All the reds were very tasty and flavorful. Tasting truly delicious fruit makes all the hard work worthwhile, it is very gratifying.

What's left – Cabernet Franc and Sauvignon, Barbera and Petit Verdot. In the industry, there is still a fair amount of Merlot hanging, this will come off gradually over the next week or so.

Finger Lakes (*Hans Walter-Peterson*).

While harvest certainly isn't almost over, it's probably safe to say that we're in the "later stages" of it. Concord and Riesling have continued to be the primary varieties coming off the vines over the past week. Growers have also been picking Lemberger, Merlot, and the final few lots of Gewurtztraminer as well.

Fruit continues to hold together for the most part, but the rains that we received about 10 days ago seem to have kicked late season cluster rots back into gear in some places. We're seeing a little bit more sorting going on both in the field and at the crush pad to reduce the amount of infected fruit making it into the presses and fermentors. We have seen small amounts of *botrytis* sporulation on Cabernet Franc this week as well (see photo), a variety that we normally don't see with much *botrytis*. However, this is probably more of a reflection of the high level of early infections that we had this year around bloom than of the conditions since the start of harvest.

Yields are running higher than expected in a lot of cases, and some wineries are having to scramble to find tank space for all of the fruit that is coming in. The NY Grape & Wine Classifieds site has been buzzing for much of harvest as well, with lots of vineyards needing to find homes for excess fruit.

The forecast for the next week looks more like what we expect at this time of year in the Finger Lakes - cooler temperatures with some occasional rain just to make things interesting. Sub-freezing temperatures (enough to cause a hard freeze) are supposed to arrive next weekend, however, which would effectively end the ripening season.

Hudson Valley (*Steve Hoying*).

We are done picking here at the Hudson Valley lab except for a few panels of Vidal blanc. They will hang just as long as the weather holds which looks to be more than another week! There are still grapes being picked in the industry, many varieties have been held until absolute perfect maturity. Cabernet franc picked this week has been outstanding.

In this issue, I will try to summarize this season in the Hudson Valley. This year started later than last year's record early season and very close to normal. It seemed like there was more than ample time to accomplish pruning and tying so many vineyards in the Hudson Valley were in great shape by the beginning of bud swell. Conditions were perfect for bud swell, bloom and early shoot growth. We pruned a little harder than normal to reduce buds to acceptable levels given there was very little evidence of winter bud kill and luckily there were no significant frost events even in the coldest sites.

Botrytis sporulation on Cabernet Franc cluster. Infection is more likely related to conditions at bloom than during harvest.
Photo: Mike Colizzi

Vines appeared very healthy early with adequate nutrition and excellent conditions for weed killer application and effectiveness. Good early growth and dry conditions also minimized the need for the earlier disease sprays.

Although drier than normal, rainfall was almost ideal through June and early July with 1 inch plus rains just as we needed them, then with 7 to 10 day spells with no precipitation. Just as it was starting to get dry in late July, we received a soaking rainfall and then no other significant dry periods throughout the summer. There was very little hail in the Valley this year, and only a couple of weeks when sunburn became a problem.

Harvest of early varieties started in late August and was orderly with growers waiting until grapes were suitable for the style of wine they were producing. Conditions have been excellent throughout the harvest period with periodic light rains, lots of sunshine. More storms were predicted than actually occurred. In short, there was nothing that could not be dealt this season. No hurricanes or freak snowstorms.

We will have accumulated a solid 3000 growing degree days (base50) since April 1st which puts the Hudson Valley in the Region 3 category on the Winkler scale. Surprisingly the accumulation of 3000 has been achieved each year since 2009 when it was only slightly lower.

Foliage conditions across the Valley depended on the location. Organic growers and those who missed intermittent sprays did have significant problems with Downy and powdery mildew resulting in early leaf drop and poor leaf quality which slowed ripening. Early black rot infections were evident just after veraison in some blocks with many shriveled black berries.

Mechanical Crop Thinning Pays off for Concord Growers

Luke Haggerty and Kevin Martin
Lake Erie Regional Grape Program

Tim Martinson
Statewide Viticulture Extension Program

Concord growers in Western New York and Pennsylvania, facing an extremely heavy crop, used mechanical thinning with grape harvesters this year to ensure their grapes got ripe.

Growers representing 30 to 50% of the 30,000 acres of Concords in the region got their grape harvesters out in late July and early August to remove up to 30% of their crop. By doing so, they were able to meet processors' maturity standards (15.5 °Brix minimum), and avoid crop losses.

Farm Business Management specialist Kevin Martin with the Lake Erie Regional Grape Program (LERGP) estimates that growers in the region will see an overall economic benefit of $9.6 to $15 million in the estimated 50% of vineyards that were overcropped this year.

"Many vineyards were carrying up to 15 tons per acre before thinning", said Luke Haggerty, LERGP Extension Viticulture Specialist, "In thinned blocks grapes are testing at 16 to 17 °Brix, while many unthinned blocks are lagging behind at 14-15 °Brix."

"Approximately 50% of our New York acreage and 33% of our Pennsylvania acreage was mechanically thinned in July, and results are quite dramatic," said Rich Erdle, Director of Grower Relations for National Grape Cooperative. "Those that targeted 8 to 9 tons per acre were able to deliver grapes with quite acceptable sugar solids the first day the plant opened on Sept. 27."

The techniques for mechanical crop estimation and thinning, developed over the past 15 years by Cornell scientists and extension specialists, have provided growers with a management tool to maximize yield of ripe grapes in years where grapes are overcropped – with too many grapes and too little leaf area to ripen them by the end of the growing season. This year is such a year.

The situation. Many factors aligned to create the 'perfect storm'. Widespread frost damage in early 2012 reduced the crop by 50%, and left extremely fruitful buds going into 2013. Last year's low yields led many growers to leave more buds than they normally do to ensure a high crop potential this year. What put this year's crop load over the top was the exceptional fruit

Mechanical crop thinning on Concord at the Cornell Lake Erie Research and Extension Laboratory in Portland, NY. See video on LERGPs Facebook page

Photo courtesy Lake Erie Regional Grape Program

set brought on by ideal weather conditions earlier in the growing season. The result was an increased number of berries that were larger than normal. The final outcome was more grapes than most vines could ripen.

Crop thinning technology. Crop thinning is a method of mechanically reducing fruit to a manageable or appropriate crop load. Its development can be traced back to Nelson Shaulis's pioneering research on crop load management in the 1960s and 70s. A brief history:

- **Balanced pruning.** Dr. Nelson Shaulis defined the relationship between the vine's exposed leaf area and fruit maturity. Balanced pruning formulas, favoring vegetative growth to ensure crop ripening, helped growers exceed minimum brix standards in most growing seasons. Pruning formulas (30+10, for example) resulted in a maximum node count (number of buds left after pruning) of about 60-70 nodes.
- **Minimal pruning.** By the mid-80s the need to increase yields and lower costs led to Dr. Robert Pool's research on minimal pruning and mechanical hedging to promote large crop size. With vines carrying up to 300 nodes, the idea was that each bud would produce fewer and smaller clusters, but that yields would increase and vines would meet processor's brix standards in most years. Mechanical thinning to reduce crop load in 'overcrop' years was a key component of this idea, and the subject of research trials starting in the early 90s.
- **Balanced crop load management.** More recently Dr. Terry Bates has looked at ways to achieve both high crop potential and fruit maturity. A middle ground between balanced pruning and minimal pruning, this approach entails midseason crop

Mechanical crop estimation at the Betts vineyard near Westfield New York this past July. Grapes from 48 ft of row (1/100 acre) are harvested into a bucket and weighed.

Photo courtesy Bob and Dawn Betts

estimation paired with moderate fruit thinning to match vine crop load with the current growing season conditions.

It typically results in vines carrying 90-150 buds, depending on vine size. The technology developments behind crop thinning have helped maintain high crop yields and reach targeted sugar levels.

Impacts of overcropping. Overcropping not only results in delayed sugar accumulation, but it also delays wood maturity and impacts vine health and return crop for the following year. Late harvest of less-ripe grapes can reduce bud fruitfulness, vine size (pruning weights) and leave fewer nitrogen and carbohydrate reserves to support early canopy development. The goal is to find a balance that maximizes yield and sugar levels for the current crop while maintaining vine health for next year's crop.

The technology: The main concern with crop thinning is how much to take off and when to do it. Thinning at any time will reduce crop-related delays in accumulating sugar, however thinning before veraison has the greatest impact. Multi-year research projects have allowed the LERGP team to develop the following steps:

- **Crop estimation 30 days after bloom:** Harvest 1/100 of an acre (about 48 ft or 2 post lengths at 9 ft row spacing) and weigh the fruit. At 30 days after bloom, berries have reached about 50% of their final weight at harvest.
- **Thinning table:** Look up estimated crop weight in the crop estimation and thinning table to convert lb. fruit in 1/100 of an acre to estimated tons per acre at harvest.
- **Set a target amount to thin off:** Decide on how much crop to remove, based on prior experience (this vineyard in an average year can ripen about 9 tons of grapes; I have 12, I need to remove 3T) or reasonable expectation for the year. A rule of thumb is that growers can gain about 1°brix at harvest for every 3 T removed by thinning.
- **Adjust harvester to desired crop level:** By trial and error, vary harvester settings (beater speed, ground speed) and measure (as above) the weight of fruit thinned from 1/100 of an acre.

Typically, most growers crop thin about 30 days after bloom, but research has shown that thinning any time before veraison can be effective. In practice, growers have about a 15-20 day window for completing the thinning.

These simple steps distilled into practice results of many years of research – both at Cornell's experimental vineyards in Fredonia and Portland and with grower-cooperators in commercial vineyards. Terry Bates describes these trials in detail in an article entitled Concord Crop Adjustment: Theory, Research, and Practice , originally published in the June 6, 2003 issue of *Lake Erie Vineyard Notes,* and reprinted this year in LERGP's July newsletter.

Economic impact. Final estimates of the economic impact await the end of harvest. But one processer informally estimated that 50% of their acreage has been mechanically thinned.

To estimate the value of thinning, one has to account for:

- The value of the crop that exceeded processor's standards as a result of thinning.
- The salvage value of an unthinned crop with higher tonnage, but which was rejected by the processor and sold at a discount elsewhere.
- The cost of mechanical crop estimation and thinning.
- The effects of overcropping on next year's vine health and crop potential.

2013. It appears that at least 50% of that acreage was significantly overcropped. Thinning in these areas, where the crop would not have ripened, significantly increases net returns. These growers will see net revenue climb by more than $1,600 per acre, on average.

The impact across the Lake Erie region totals $9.5 million.

This assumes a cost of thinning of $75 per acre. It also assumes grapes that fail to meet minimum standards have no salvage value. In the midst of harvest we are seeing unripe grapes being salvaged for very moderate prices. If an additional 100,000 tons flooded the market, the salvage value would fall to near zero.

2014 and beyond. Growers who thinned overcropped blocks will also see an uptick in revenue next year. Thinning will have an impact on either vine size or crop size. This size of this impact will be dependent on the current crop load and vine size. Some growers were so over-cropped that removing six tons of fruit still left the vine over-cropped. They're barely meeting minimum standards and the return crop next year will not be above average. Many other growers removed 4 to 5 tons and see a balanced crop that will improve vine health and the potential return crop.

Other acreage that was not as significantly overcropped could see a modest increase in net revenue next year. Their crop may have met minimum standards this year but not without some sacrifices. The most obvious is vine health and return crop. A large secondary cost is harvest logistics and late harvest shelling.

Justifying the cost of thinning is the net present value (NPV) of future crop. The value of a future crop is dependent on a grower's individual circumstances. The time value of money ranges between 1.5% and 6%. The probability of frost or a similar disaster ranges from 8% - 35%. The enhanced return crop has a NPV in the range of $275 – $1500 per acre. The NPV of next year's crop, assuming effective thinning on the 50% overcropped acres, would increase by at least $3.5 million.

Overall economic benefit. The economic benefit of fruit thinning practices falls in the range of $275 - $3300 per acre, with an overall economic benefit for the region in the range of $9.6 - $15 million dollars. A hard freeze in mid-October could increase that estimate by another $3 million dollars. Such an event would decrease the final brix of over-cropped vineyards.

Crop thinning has helped growers bring in a large, ripe crop in a year in which that was less than certain.

According to Rich Erdle, "Current Concord deliveries at our Westfield and North East plants are averaging 16.3 °brix, and we likely will end up with record high yields. Results of crop thinning this year may be the best we have seen."

Future Directions: Automating Crop Estimation and Thinning with Yield Monitors

Tim Martinson and James Taylor

This year, thanks to CLEREL research associate and precision agriculture expert Dr. James Taylor, three yield monitors from Australia are being used on grape harvesters in the Lake Erie region. Installed under the discharge conveyor belt, a 'load cell' weighs the mass of grapes passing over the conveyor in 'real time'.

Used along with GPS navigation on the harvester, this system can produce a detailed spatial 'yield map' of a vineyard. Having such a map will allow growers to see and manage variability in the vineyard.

The unit at CLEREL, installed last year, was evaluated mid-season for crop estimation – and results look promising. If accurate enough, these units could turn crop estimation—now requiring at least a second person to capture and weigh the grapes picked by the harvester—into a one-person job.

Yield monitors were installed this year on three Lake Erie grape harvesters. Grapes are weighed as they pass over the 'load cell' installed just under the conveyor belt.

Photo by James Taylor

It also could significantly improve the accuracy of crop estimation in vineyards with a lot of variability. By eliminating set up time, the need to physically weigh the grapes and being able to georeference measurements, growers could target more, but smaller samples in different regions in a vineyard.

With the information from the yield monitor, it may also be possible to adjust thinning rates 'on the fly' to differentially thin a vineyard to a target fruit load and avoid overshooting or undershooting final thinning and yield targets.

These potential applications all point to one overarching goal of CLEREL's current research on Concords: to use tools such as canopy sensors, GPS, and yield monitors to be able to identify and manage variability in crop load in vineyards. Current research has shown a lot of progress in developing 'spatial crop load maps' - that measure both canopy fill and fruit load by automated measurements. These tools will allow growers to identify and manage variability in their vineyards for more consistent productivity.

Fruit Maturation Report - 10/18/2013

Samples reported here were collected on **Monday, October 14.** Where appropriate, sample data from 2012, averaged over all sites is included. Tables from 2012 are archived at http://grapesandwine.cals.cornell.edu/cals/grapesandwine/veraison-to-harvest/2012.cfm.

We are again reporting berry weight, brix, titratable acidity and pH, and yeast assimilable nitrogen (YAN), as part of a joint project with Anna Katharine Mansfield and Lailiang Cheng. Graduate student Mark Nisbit is running the YAN assays as part of his Ph D project, and other students from the Enology lab are running samples . - TEM

Cabernet Franc

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/14/2013	E. Seneca	1.66	22.1	3.24	5.9	66
Finger Lakes	10/14/2013	W. Seneca	1.32	21.8	3.27	6.1	54
Finger Lakes	10/14/2013	Cayuga	1.68	20.9	3.32	5.7	90
Finger Lakes	10/14/2013	W. Seneca	1.51	21.4	3.29	6.7	83
Hudson Valley	10/14/2013	HARVEST					
Lake Erie	10/14/2013	Portland	1.48	19.0	3.43	6.8	191
Long Island	10/14/2013	LI-05	2.04	22.6	3.62	5.7	89
Long Island	10/14/2013	HARVEST					
Average	**10/14/2013**		**1.62**	**21.3**	**3.36**	**6.2**	**95**
Prev Sample	10/7/2013		1.63	20.7	3.42	5.9	84
'12 at Harvest	10/16/2012		1.66	20.7	3.40	6.5	71

Catawba

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/14/2013	Keuka	2.33	18.1	3.00	11.1	60
Prev Sample	**10/7/2013**	**Keuka**	**2.39**	**16.4**	**2.98**	**11.9**	**28**
'12 at Harvest	10/1/12	Keuka	2.24	19.5	3.02	9.0	77

Cayuga White

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/23/2013	Keuka	HARVEST				
Finger Lakes	9/23/2013	Cayuga	HARVEST				
Final sample	**9/23/2013**	**HARVEST**	**2.98**	**16.6**	**2.98**	**11.4**	**219**
'12 at Harvest	9/5/2012	HARVEST	2.52	18.8	3.18	8.7	284

Chardonnay

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/7/2013	Cayuga	HARVEST				
Finger Lakes	9/30/2013	W. Seneca	HARVEST				
Finger Lakes	10/7/2013	W. Seneca	HARVEST				
Long Island	10/7/2013	LI-03	HARVEST				
Final Sample	**9/30/2013**		**1.61**	**20.4**	**3.35**	**7.4**	**135**
'12 at Harvest	9/17/2012	HARVEST	*1.48*	*20.7*	*3.60*	*6.1*	*245*

Concord

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/14/2013	Keuka	2.94	16.5	3.31	7.1	240
Finger Lakes	10/14/2013	W. Canandaigua	3.16	17.9	3.34	6.2	173
Lake Erie	10/14/2013	HARVEST					
Average	**10/14/2013**		**3.05**	**17.2**	**3.33**	**6.7**	**207**
Prev Sample	10/7/2013		3.38	15.9	3.34	8.7	319
'12 at Harvest	10/8/2012	Keuka	3.09	17.5	3.40	6.6	242

Lemberger

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/14/2013	Keuka	1.84	23.3	3.21	5.8	93
Prev Sample	**10/7/2013**	**Keuka**	**1.83**	**22.7**	**3.32**	**5.5**	**86**
'12 at Harvest	9/24/2012	HARVEST 2012	1.79	23.6	3.20	7.2	40

Malbec

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Long Island	10/14/2013	LI-06	2.43	22.7	3.68	6.1	176
Prev Sample	**10/7/2013**	**LI-06**	**2.33**	**22.1**	**3.70**	**6.4**	**149**
'12 at Harvest	10/16/2012	North Fork S	1.95	21.6	3.55	8.5	186

Merlot

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Hudson Valley	10/14/2013	HVL					
Long Island	10/14/2013	LI-04	1.88	22.4	3.79	4.2	104
Long Island	10/14/2013	HARVEST					
Average	**10/14/2013**		**1.88**	**22.4**	**3.79**	**4.2**	**104**
Prev. Sample	10/7/2013		1.79	20.9	3.76	4.5	116
'12 at Harvest	10/16/2012	North Fork (4)	1.99	20.7	3.63	5.7	119

Niagara

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Lake Erie		HARVEST					
Final Sample	**9/23/2013**	**Portland**	**4.01**	**14.8**	**3.28**	**6.8**	**335**
'12 at Harvest	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	10/14/2013	HVL	1.56	18.2	3.51	7.0	271
Lake Erie	10/14/2013	HARVEST					
Final Sample	**10/14/2013**	**HVL**	**1.56**	**18.2**	**3.51**	**7.0**	**271**
Prev Sample	10/7/2013		1.82	17.2	3.44	8.8	267
'12 at Harvest	10/1/2012		1.61	19.2	3.45	6.9	208

Pinot Noir

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/30/2013	HARVEST					
Final Sample	**9/23/2013**	**E. Seneca**	**1.58**	**20.6**	**3.13**	**8.0**	**94**
'12at Harvest	9/10/2012	HARVEST 2012	1.46	20.9	3.52	6.4	222

Riesling

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/14/2013	E. Seneca					
Finger Lakes	10/14/2013	E. Seneca	1.58	20.2	3.08	7.2	61
Finger Lakes	10/14/2013	W. Seneca	1.38	19.2	3.06	8.1	63
Finger Lakes	10/14/2013	E. Seneca					
Finger Lakes	10/14/2013	CL 90 Cayuga	1.63	18.6	3.15	8.4	125
Finger Lakes	10/14/2013	Keuka					
Finger Lakes	10/14/2013	W. Seneca					
Finger Lakes	10/14/2013	W. Seneca					
Finger Lakes	10/14/2013	W. Canandaigua	1.68	17.9	3.18	9.6	256
Hudson Valley	10/14/2013	HVL	1.60	15.8	3.40	7.2	182
Lake Erie	10/14/2013	Fredonia	1.68	14.8	3.17	7.3	157
Long Island	10/14/2013	LI-01					
Average	**10/14/2013**		**1.59**	**17.8**	**3.17**	**8.0**	**141**
Prev Sample	10/7/2013		1.58	17.7	3.18	8.3	125
'12 at Harvest	10/1/2012		1.47	19.6	3.10	7.1	59

Sauvignon Blanc

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Long Island	9/16/2013	HARVESTED					
Final Sample	9/9/2013	HARVESTED	1.23	22.1	3.23	8.1	141
'12 at Harvest	9/10/2012	HARVESTED	1.70	20.2	3.40	7.5	141

Seyval Blanc

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/16/2013	Harvested					
Final Sample	**9/9/2013**	**HARVESTED**	**1.77**	**19.9**	**3.22**	**6.4**	**126**
'12 at Harvest	9/10/2012	HARVESTED	1.71	19.4	3.39	6.3	194

Traminette

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	10/14/2013	Keuka	1.94	23.2	3.01	9.2	121
Hudson Valley	9/30/2013	HARVEST					
Lake Erie	10/7/2013	HARVEST					
Average	**10/14/2013**	**Keuka**	**1.94**	**23.2**	**3.01**	**9.2**	**121**
Prev Sample	10/7/2013		1.99	21.2	3.19	8.4	158
'12 at Harvest	10/1/2012		1.80	21.8	3.18	7.2	109

Vignoles

Region	Harvest Date	Description	Ber. Wt. g.	°Brix	pH	TA g/L	YAN (ppm)
Finger Lakes	9/23/2013	VSP Keuka	HARVEST				
Finger Lakes	9/30/2013	W. Seneca	HARVEST				
Final Sample	**9/30/2013**	**W. Seneca**	**1.67**	**23.9**	**3.16**	**12.9**	**179**
'12 at Harvest	9/10/2012	HARVESTED	1.32	24.5	3.27	8.8	163

Field Grafted Vines at White Springs Vineyard

Field grafting is commonly used in California to convert one scion variety to another, hopefully more profitable and 'in demand' one.

Following a flurry of field grafting activity in the early 80s (Often converting Concord or Ives to a hybrid variety such as Seyval blanc), there hasn't been much field grafting practiced in the Finger Lakes.

Morton and Lisa Hallgren, owners of Ravines wine cellars and White Springs vineyards near Geneva, decided to field graft a couple of vineyard blocks in 2012, when they took over management of the vineyards and winery.

Shown in the photo is a four-row section (and they are long rows) of Chardonnay, grafted on to Pinot gris. In this, the year after field-grafting, the vines are producing about half of a full crop, according to vineyard manager Doug Davis.

The speed (and low cost, compared to replanting) at which a vineyard can come back into production is an advantage of this technique. It cuts about 3-4 years off of the time it would take to get a new vineyard planted and up to full production.

The field grafts had a very low failure rate, and I suspect that an important part of the story was that an experienced crew was flown in from California to do the work.

A little extra maintenance is involved in making sure the 'old' scion doesn't try to reassert itself and take over. But apparently its not much different than normal suckering, and they are finding regrowth much reduced in the second year.

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Photos by Tim Martinson

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