Veraison to Harvest

Statewide Vineyard Crop Development Update #5

October 3, 2008

Cornell University Cooperative Extension

Edited by Tim Martinson and Chris Gerling

Around New York...

Vidal blanc near Glenora, NY
Photo by Tim Martinson

***Statewide** - Tim Martinson*

Harvest weather changed from sunny to rainy and cool this week. At Geneva, although rain totaled only 1 inch (other regions had as much as 4 in), vines didn't get the chance to dry out - and moisture sensors registered 14 to 23 hours each day of leaf wetness. This trend held for western NY, while Eastern NY and Long Island were sunny later in the week. Averages for our fruit sampling (Fruit Maturity table starting on p. 6) showed a continued increase in berry size (rainfall probably swelled berries), but also 0.4 to 1.1 º brix increases for later varieties, and 0.2 to 1.1 g/l drop in titratable acidity. Ripe (Chardonnay) and over-ripe (Cayuga White) varieties showed little change. Riesling (12.9 g/l TA) acids are higher than last year's, but similar to '06. TA values in some reds (Cab franc, Cab Sauv, and Lemberger) are almost identical to last year's (surprise). Although botrytis is a concern, cool ripening weather should favor flavor development in aromatic whites, and crisp acidity at harvest.

***Finger Lakes** - Hans Walter-Peterson.*

Harvest continues to march along in the Finger Lakes, although not in the almost ideal conditions that we had last week. Chardonnay has been making its way to wineries this week, while most, if not all, of the Pinot Gris and Pinot Noir has been brought in at this point. A small amount of Riesling has been picked so far, but if our sampling is fairly representative of the current conditions, it will probably be left to hang a bit longer as long as the condition of the fruit remains good. Later ripening hybrids like Corot Noir, Noiret and Traminette will also likely be left to hang for a while longer as Brix remain in the 16-18 range. Concord harvest for members of National Grape also finally got underway this week as well. Last week's sunny, dry and relatively warm weather gave way to cooler and wet conditions this week. The high level of moisture on the vines certainly does not help with the persistent late-season disease pressure that most vineyards have been dealing with. Visits to a couple of vineyards on Thursday showed significantly higher downy and *botrytis* infection levels in certain areas than a couple of weeks ago, particularly in some Riesling blocks, while others were still holding their own and looking fairly healthy. Fortunately, not much sour rot has developed in clusters to this point. I have not seen any vineyards completely defoliated by downy mildew yet, but levels appear to be high enough in many places that the potential for it to happen is still there. Beginning this weekend, we're supposed to get a break from the rain for several days, albeit a cool one, hopefully allowing for some more fruit development before the next batch of showers comes along.

***Long Island** - Alice Wise and Libby Tarleton*

After more than 4" of rain at the end of September, warm temperatures and sunny weather persisted this past week. White varieties have been mostly harvested, both before and after the rains. Generally Brix were low to moderate (19-22) with nice acidity to balance full, rich flavors. A little sorting was necessary in some blocks but given the challenging end-of-season weather, whites were in remarkably good condition. The fruit in 2008 is distinctly different than our benchmark year of 2007, but almost across the board, flavors are very good and growers are

happy. A few of us are fighting downy mildew on canopies, undoubtedly stoked by the rains. Cooler but dry weather arrived with the front on October 2. This is the predicted weather for the next week, it should help keep downy to a minimum.

Hudson Valley - *Steve Hoying and Steve McKay*

White grapes are nearing the end of the harvest with Chardonnay and Gamay having been picked last week. Some botrytis problems on the tight clustered varieties such as Vignole has begun to show up with recent wet weather. Botrytis on the loose clustered varieties such as Traminette and Noiret have not been a problem. Traminette harvest could begin as early as this Sunday, with Frontenac, Noiret, Vignole, beginning next week.

The quality of harvested grapes has remained excellent despite the intermittent wet weather over the past 2 weekends. The cool weather predicted for the foreseeable future is expected to slow ripening.

Lake Erie - *Jodi Creasap Gee*

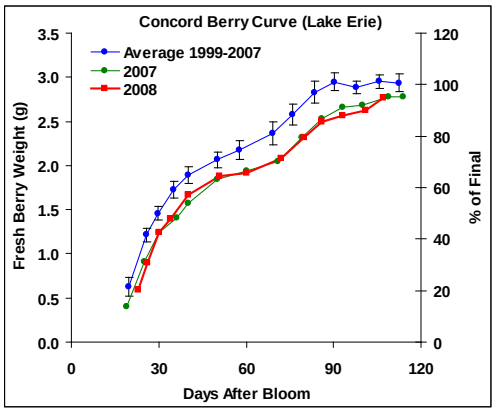
The rains have come in to the Lake Erie region and made everything very very wet this week. In fact, we have had about 3-4 inches (or more in some areas) of rain this week. At least one of the processors slowed down during the rain this week, but with the forecasted sunny weather, that will likely pick back up again. The Niagara harvest is finished for most of the processors, and hail damaged fruit mostly made standards, unless there were significant amounts of rot in injured berries. Growers have been scrambling to get fruit in to wineries and processors, and winemakers have been facing the difficult decision of whether to harvest sooner rather than later to reduce the chances of bringing in fruit full of rot. Noiret, Traminette, and Corot Noir – the new kids on the block around here – are close, but not quite ready in most places, although the Traminette at the Fredonia Lab will likely be picked within the next week. We have some sunshine forecasted for the next few days, and we hope it will stick around for a while longer so the fruit can ripen without more fungal intruders.

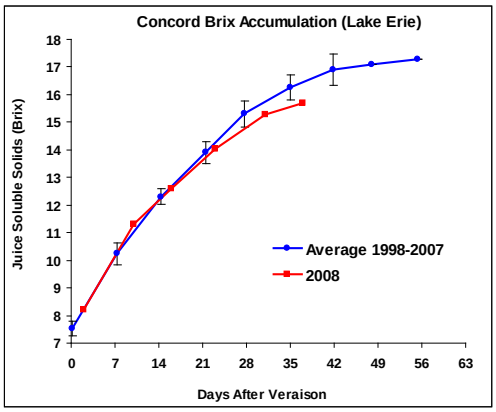
Concord Ripening Profile at Fredonia - September 29th

Terry Bates
Research Associate
Horticultural Sciences
Fredonia Vineyard Laboratory

Concord berry weight and juice soluble solids were taken on 9/29/2008 from 120 node vines with 100% crop (around 10 tons/acre) at the Portland, NY laboratory. We are quickly running out of season for Concord ripening in terms of day length, temperature, and vine physiology. As we have recorded in other years, changes in Concord berry weight beyond 100 days after bloom can be influenced by water status – and we see this again in 2008. There is plenty of moisture in the soil and in the vines and this has led to a noticeable increase in Concord berry weight over the past week. We can see the opposite dehydration effect in unusually dry seasons. The juice soluble solids accumulation rate in 2008 is also decreasing, both from a natural seasonal decline and from a "dilution" caused by the increase in berry water weight. Last week the fruit only gained 0.07 Brix/day and that is unlikely to increase next week even with a favorable weather forecast.

Note: This is the last Concord Ripening Profile. Sample block has been harvested. Thanks to Terry Bates for these updates. -TEM





NY Wine Analytical Laboratory- a Resource for New York Winemakers

Chris Gerling
Statewide Enology Extension Program

Since 1989, the NY Wine Analytical Laboratory and Wine Data Bank (NYSWAL), housed at the NYS Agricultural Experiment Station, has provided a wide range of analytical services for the wine industry in New York. While the full spectrum of chemical analyses is offered (see attached sheet), the lab also gives sensory appraisals and technical support to winemakers. Heading the lab since its inception, Ben Gavitt has seen and tasted just about everything there is to see and taste in wines from around the corner and around the world.

When juice and wine samples are sent to the lab–yours or ours–they are most likely there for one of two reasons: routine checks or problems. The former category can be anything from fermentation progress to acids, sugars, SO_2 etc., while the latter has no real boundaries. In either case, the winemaker will be looking for an analytical result (i.e. a number) upon which a decision can be made. The number is only half of the story, and the decision is also pretty important. We like to think that the NYSWAL is equipped to help the industry with both parts of the story. Whenever possible, we try to provide causes of and solutions to any quality problems that may have arisen along with the diagnosis. In other words, we try to provide advice on how to correct problems as well as the numbers.

Actively sporulating Botrytis in a Chardonnay Vineyard on October 1
Photo by C. Gerling

Ben Gavitt, New York Wine Analytical Laboratory, checks results from the FOSS instrument used for wine analysis.
Photo by C. Gerling

In January, 2009, we will he adding a new faculty member to our extension team in Dr. Anna Katherine Mansfield. Along with her knowledge and skills, we also hope to add new analytical instruments and equipment to better serve our advancing wine industry. We plan to continue to support the wine industry from new businesses to established wineries, from harvest concerns to sterility and stability before bottling, and from pH measurements to the most exotic haze you've ever seen a liquid throw.

This year the NYSWAL is collaborating with DairyOne, a non-profit organization that provides a number of analytical and consulting services to the dairy industry. It has recently begun a pilot analysis program with must samples from New York wineries. For basic analyses, a high-throughput, quick turnaround service like DairyOne is envisioning could potentially be of great benefit to NY wineries.

New Form and Simplified Fee Structure: This year there have been some slight changes in the rate structure and there is a new form for submitting samples, which is attached with this newsletter. Now there are only two designations: New York State and out of state. The new sheet will have prices listed for all analyses in a grid format. We are also asking you NOT to send payment in with your samples and form. Once the samples have been processed, you will receive an invoice. Don't worry- we won't do anything you haven't asked for! For more information, contact Ben Gavitt at 315-787-2263, or bkg1@cornell.edu

The form will be listed online at http://www.grapesandwine.cals.cornell.edu/facilities/facildocs/NYSWAL.10.08.pdf

The Wine Analytical Laboratory and New York Wine Data Bank

Cornell University, New York State Agricultural Experiment Station, Geneva, NY

Log # _____

Prices for Standard Analyses as of 9/08

Name _____ Sample # _____

Firm _____ Date Sent _____

Address _____ Date Rec'd _____

_____ Condition _____

Phone / Fax _____ Reported _____

E-mail _____

Analysis	NYS	Out of State
Juice Analysis: pH,TA, fermentable sugar, malic, lactic, acetic acid	35.00	110.00
Wine Analysis: pH, TA, fermentable sugar, acetic, tartaric, malic, lactic acid, alcohol, free & total SO2, protein & tartrate stability, sensory	45.00	200.00
pH	no charge	10.00
Sensory Appraisal	no charge	60.00
Consultation	no charge	150 per hr
Titratable acidity and pH	12.00	20.00
Soluble solids (Brix)	no charge	10.00
Residual Sugar (glucose & fructrose)	20.00	30.00
Alcohol	20.00	30.00
Fermentable sugars and alcohol	30.00	45.00
Individual organtic acids	20.00	30.00
Malic and lactic acid	20.00	30.00
Sorbate	20.00	30.00
Free & Total SO2	20.00	30.00
Ammonia (**minimum 10 samples**)	30.00	45.00
Yeast Available Nitrogen (**minimum 10 samples**)	30.00	45.00
Potassium	20.00	30.00
Iron	20.00	30.00
Copper	20.00	30.00
Atypical aging	20.00	30.00
Heat Stability (protein)	15.00	23.00
Cold Stability (tartrate)	15.00	23.00
Sterility check (yeast & bacteria)	30.00	50.00
Sterilty check (yeast only)	20.00	30.00
Sterily check (bacteria only)	20.00	30.00
Microscopic analysis	20.00	35.00
Bench trials	50.00	70.00

Total: _____ _____

Please do not send payment at this time. You will receive an invoice after analyses are performed (no analyses will be carried out without your permission).

Please circle one: Juice Wine

Grape Variety: _____ Fruit Wine Type: _____

Vineyard Location (if NY): Lake Erie Finger Lakes Hudson Valley Long Island

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Sampling Focus:

Lake Champlain Planting of Cold-Climate Grapes

Timothy E. Martinson
Statewide Viticulture Extension
Kevin Iungerman
Northern New York Fruit Program

Three years ago, **Kevin Iungerman**, of Cornell Cooperative Extension's **Northeast NY Fruit Program**, planted a trial of cold-hardy varieties at Cornell's Baker Research Farm near Willsboro, NY, at the northerly end of Lake Champlain, with support from the Northern New York Agricultural Development Program. Planting has been maintained this year by **Richard Lamoy**, with considerable help from volunteers from the area. This is the first 'full' harvest, and fruit samples from all 24 varieties were collected last Wednesday, September 24.

The 'cold climate' hybrids - from the University of Minnesota breeding program and a variety of private breeders - withstand winter low temperatures down to -20 to -30 ° F. Note that among the reds, Univ. of Minnesota selections Frontenac (first red release), Marquette (recent release), and MN 1200 (still under testing) show progressively lower titratable acidity, with Frontenac (and Frontenac Gris- a white 'sport' of Frontenac) at 14 g/L - right up there with Baco Noir. Marquette, released in 2006, is being widely planted in the upper Midwest and Northeast. More information is available at:

University of Minnesota: www.grapes.umn.edu
Minnesota Grape Growers Association: http://mngrapes.org/

Table 1. Fruit Chemistry at Willsboro Grape Trial on September 24, 2008

Type	Name	Color	Berry weight	Brix	pH	TA (g/L)
Cold Climate Hybrids	Marquette	Red	1.29	25.1	3.18	11.2
	MN 1200	Red	0.90	23.1	3.33	8.7
	Frontenac	Red	1.13	22.0	3.36	14.0
	Sabrevois	Red	2.15	19.5	3.50	10.1
	St. Croix	Red	2.27	18.2	3.44	9.1
	Frontenac Gris	White	1.30	22.7	3.40	14.6
	La Crescent	White	1.48	22.5	3.50	11.4
	St. Pepin	White	2.45	21.0	3.31	9.3
	ES 6-16-30	White	2.88	20.3	3.50	5.7
	Prairie Star	White	2.01	19.3	3.58	9.5
	Louise Swenson	White	2.83	19.1	3.43	6.2
	La Crosse	White	1.60	18.8	3.20	10.3
	Petite Amie	White	2.15	18.8	3.44	8.5
	Eidelweiss	White	3.27	17.7	3.66	6.0
Standard Hybrid	Leon Millot	Red	1.23	23.0	3.61	7.1
	Marechal Foch	Red	1.24	22.6	3.49	9.2
	Baco Noir	Red	1.31	20.5	3.40	14.3
	Landot Noir	Red	2.29	19.2	3.40	8.8
	Vignoles	White	1.53	19.4	3.17	14.3
Geneva Hybrid	GR 7	Red	1.68	20.1	3.39	10.6
	Noiret	Red	1.94	15.9	3.19	11.1
	Cayuga White	White	3.11	18.0	3.15	9.8
	76.0844.24	White	1.74	17.7	3.30	10.4
Labrusca	Niagara	White	2.22	16.1	3.32	7.3

Top: St Croix : Bottom: Harvested 'Prairie Star' Left: Planting of 24 varieties in early June, 2008 at the Willsboro Research Farm, on the southern end of Lake Champlain. The lake is ca. 400 meters downhill, within view of the planting.

Photos by Kevin Iungerman and Tim Martinson

Fruit Maturation Report

Samples reported here were collected on **Monday, September 29,2008.** Where appropriate, sample data from 2006, averaged over all sites (mostly Finger Lakes), is included. Tables from 2007 are archived at: : http://blogs.cce.cornell.edu/grapes/07-veraison-to-harvest-archive/ Next samples will be collected **Monday, October 6.**

Cabernet Franc

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	9/29/2008	FL-9	1.78	19.1	3.04	9.5	5.3	3.1	0.2
Finger Lakes	9/29/2008	FL-10	1.73	18.9	3.12	9.2	4.9	3.4	0.3
Finger Lakes	9/29/2008	FL-11	1.74	18.4	3.20	10.0	5.8	4.3	0.7
Hudson Valley	9/29/2008	11-HV-CF-4	1.31	20.1	3.19	7.6	4.6	2.4	0.6
Lake Erie	9/29/2008	12-LE-CF-X-5-5	1.97	20.4	3.26	8.7	4.7	3.5	0.7
Long Island	10/1/2008	LI-CF-1	1.75	18.1	3.37	7.2	4.3	2.3	0.8
Long Island	10/1/2008	LI-CF-5	1.80	19.4	3.44	7.7	4.4	2.8	0.9
Average	*9/29 &10/1*		*1.73*	*19.2*	*3.23*	*8.6*	*4.9*	*3.1*	*0.6*
Previous sample	*9/22/2008*		*1.61*	*18.6*	*3.16*	*9.6*	*5.1*	*3.8*	*0.5*
07 Average	10/01/07		1.47	20.3	3.22	8.5	4.7	2.8	*
'06 Average	10/02/06		1.62	18.6	3.16	11.1	4.3	5.4	*

Cabernet Sauvignon

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Lake Erie	9/29/2008	9-LE-CS-Not Thinned	1.39	18.4	3.12	11.6	5.4	5.3	0.8
Lake Erie	9/29/2008	9B-LE-Late Clus Thin	1.60	18.9	3.10	11.9	5.9	5.5	0.9
Long Island	10/1/2008	LI-CS-2	1.48	18.1	3.15	9.6	5.1	3.2	0.8
Average			1.49	18.5	3.12	11.0	5.5	4.7	0.8
Previous sample	*9/22/2008*		*1.44*	*17.5*	*3.08*	*13.2*	*6.3*	*6.1*	*0.7*
07 Average	10/1/2007		no data	20.5	3.1	12.1	5.9	4.5	*

Chardonnay

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	9/29/2008	FL-21	1.49	20.3	3.16	9.7	4.5	4.3	0.4
Hudson Valley	Harvested	12-HV-C-4							
Long Island	10/1/2008	LI-CH-7	1.63	20.0	3.31	8.1	4.1	2.9	0.8
Average	*9/29 &10/1*		*1.56*	*20.2*	*3.23*	*8.9*	*4.3*	*3.6*	*0.6*
Previous sample	9/22/2008		1.50	20.5	3.14	9.9	4.8	3.8	0.5
'07 Average	10/1/2007	(From 1 HV block0	1.52	22.2	3.34	8.9	4.4	3.9	*

Lemberger

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	9/29/2008	FL-12	2.15	21.5	2.96	10.1	5.8	2.9	0.2
Finger Lakes	9/29/2008	FL-13	2.04	20.7	3.10	10.2	5.7	3.8	0.7
Average	9/29/2008		2.10	21.1	3.03	10.2	5.8	3.4	0.5
Previous sample	9/22/2008		1.94	20.0	2.97	11.0	6.2	3.7	0.5
'07 Average	10/01/07		2.40	20.0	3.16	10.2	4.3	3.7	0.14
'06 Average	10/02/06		2.30	19.0	3.13	10.1	4.5	4.9	*

Merlot

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Long Island	10/1/2008	LI-M-3	1.72	20.9	3.37	6.7	4.5	1.3	1.0
Long Island	10/1/2008	LI-M-6	1.65	20.0	3.50	5.9	3.8	1.5	0.8
Average	10/1/2008		1.69	20.5	3.43	6.3	4.2	1.4	0.9
Previous sample Ave	9/22/2008		1.61	20.5	3.42	7.6	4.7	2.9	0.6
'07 Average	9/24/07	(*No 10/1/07 ave avail.*)	1.74	20.9	3.37	8.4	4.6	3.2	*

Pinot Noir

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Hudson Valley	Harvested	15-HV-PN-4							
Hudson Valley	9/29/2008	16-HV-PN-X5	1.30	21.5	3.27	9.4	4.9	4.2	0.7
Average	*9/29/2008*	*Only one block*	*1.30*	*21.5*	*3.27*	*9.4*	*4.9*	*4.2*	*0.7*
Previous Sample	9/22/2008		1.25	21.0	3.24	8.9	5.0	2.5	0.8

Riesling

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	9/29/2008	FL-14	1.71	18.1	2.82	13.5	6.9	4.8	0.0
Finger Lakes	9/29/2008	FL-15	1.74	18.3	2.83	13.4	6.7	5.1	0.2
Finger Lakes	9/29/2008	FL-16	1.70	17.7	2.90	14.6	7.4	5.9	0.3
Finger Lakes	9/29/2008	FL-17	1.53	18.4	2.81	13.0	7.0	4.3	0.0
Finger Lakes	9/29/2008	FL-18	1.65	17.7	2.85	12.9	6.9	4.4	0.4
Lake Erie	9/29/2008	10-LE-Leaf Pull	1.62	16.5	3.00	11.3	6.4	4.0	1.0
Lake Erie	9/29/2008	11-LE-R-No leaf pull	1.77	16.3	2.99	11.8	6.3	4.5	0.7
Average	9/29/2008		1.67	17.6	2.89	12.9	6.8	4.7	0.4
Previous Sample	9/22/2008		1.61	17.2	2.89	13.3	6.8	5.1	0.4
'07 Average	10/1/2007		1.32	18.8	2.99	10.3	6.1	2.8	*
'06 Average	10/2/06		1.77	18.6	2.97	13.2	5.6	5.2	*

Sauvignon blanc

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Long Island	Harvested								
Previous sample	9/22/2008	LI-SB-4	1.77	20.1	3.03	10.8	5.3	4.0	0.0

Marachel Foch

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	Harvested								
Finger Lakes	Harvested								
Final Average	9/22/2008		1.02	24.1	3.18	12.8	5.3	6.2	0.2
Previous sample	9/15/2008		1.09	23.3	3.17	13.0	5.5	6.1	0.3

Noiret

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	9/29/2008	FL-1 Leaf Rem/Shoot th	1.98	16.6	2.98	12.4	5.7	5.3	0.4
Finger Lakes	9/29/2008	FL-2 No LR/no Sh Th	1.86	16.6	2.94	13.0	5.9	5.7	0.3
Hudson Valley	9/29/2008	14-HV-N-4	1.96	19.1	3.06	8.0	4.4	2.1	0.4
Lake Erie	9/29/2008	5-LE-N-8-1-3	1.79	16.3	2.99	11.0	5.7	4.3	0.4
Lake Erie	9/29/2008	6-LE-N-3-1-3	1.82	17.9	3.14	10.5	5.7	4.3	0.6
average	*9/29/2008*		*1.88*	*17.3*	*3.02*	*11.0*	*5.5*	*4.3*	*0.4*
Prev Sample	9/22/2008		1.81	16.5	2.94	13.8	6.5	6.1	0.3
'07 Average	10/1/2007		1.82	18.9	3.22	9.6	5.2	3.7	*

Cayuga White

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Hudson Valley	9/29/2008	3-HV-CW-Not thinned	3.27	21.0	3.27	7.8	4.6	2.5	0.3
Hudson Valley	9/29/2008	4-HV-CW-Cluster-thinned	3.19	21.7	3.23	7.9	4.6	2.4	0.1
Average	*9/29/2008*		*3.23*	*21.4*	*3.25*	*7.9*	*4.6*	*2.5*	*0.2*
Prev Sample	9/22/2008		3.27	21.5	3.21	8.6	4.8	2.3	0.4

Corot Noir

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	9/29/2008	FL-22 Unthinned	2.41	17.2	3.29	7.4	4.1	2.9	0.2
Finger Lakes	9/29/2008	FL-23 Shoot thin/ LR	2.15	15.1	3.22	6.6	3.9	2.0	0.2
Average	*9/29/2008*		*2.28*	*16.2*	*3.25*	*7.0*	*4.0*	*2.5*	*0.2*
Previous sample	9/22/2008		2.16	15.3	3.22	7.6	4.2	2.6	0.2

DeChaunac

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Hudson Valley	9/29/2008	9-HV-D-Not thinned	2.84	17.9	2.87	14.5	6.7	5.8	0.0
Hudson Valley	9/29/2008	10-HV-D-Cluster Thinned	2.75	17.9	2.88	15.0	7.0	6.1	0.0
Average	9/29/2008		2.80	17.9	2.87	14.8	6.9	6.0	0.0
Previous sample	9/22/2008		2.83	18.2	2.82	16.1	7.1	6.1	0.0

Seyval blanc

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Hudson Valley	Harvested	5-HV-No Thin							
Hudson Valley	Harvested	6-HV-SB-Clust Thin							
Hudson Valley	Harvested	7-HV-SB-No Thin							
Hudson Valley	Harvested	8-HV-SB-Clust Thin							
Final Average	9/22/2008		*2.16*	*21.5*	*3.04*	*9.0*	*4.2*	*2.4*	*0.2*

Traminette

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Hudson Valley	9/29/2008	13-HV-T-4	1.80	21.4	2.98	8.8	4.6	2.5	0.0
Lake Erie	9/29/2008	3-LE-Shoot Thin	2.03	18.2	2.95	11.7	5.9	4.3	0.0
Lake Erie	9/29/2008	4-LE- Not thinned	2.14	18.2	2.95	11.9	5.9	4.5	0.1
Lake Erie	9/29/2008	7-LE-T-Shoot Thin	2.18	19.8	2.99	10.6	5.4	3.6	0.0
Lake Erie	9/29/2008	8-LE-T-Not Thinned	1.99	21.3	3.00	10.0	5.3	3.1	0.0
Average	9/29/2008		2.03	19.8	2.97	10.6	5.4	3.6	0.0
Prev Sample	*9/22/2008*		1.95	18.9	2.92	11.7	5.8	4.3	0.1
'07 Average	10/01/2007		1.68	22.0	3.02	9.9	5.2	3.1	*

Vidal Blanc

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Hudson Valley	9/29/2008	1-HV-V-Not thinned	2.13	19.3	3.11	10.5	5.4	4.2	0.4
Hudson Valley	9/29/2008	2-HV-V-Clust Thin	2.25	21.6	3.18	10.4	5.2	4.4	0.4
Average	*9/29/2008*		*2.19*	*20.5*	*3.14*	*10.5*	*5.3*	*4.3*	*0.4*
Previous Sample	9/22/2008		2.22	20.4	3.07	11.4	5.4	4.2	0.5

Concord

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Finger Lakes	9/29/2008	FL-19	3.46	16.8	3.28	5.8	3.0	1.8	0.1
Finger Lakes	9/29/2008	FL-20	3.84	16.8	3.30	5.7	2.9	1.7	0.2
Average	*9/29/2008*		*3.65*	*16.8*	*3.29*	*5.8*	*3.0*	*1.8*	*0.2*
Prev Sample	9/22/2008		3.34	15.3	3.15	7.0	3.5	2.4	0.2

Diamond

Location	Harvest Date	Samples	Av Berry Wt	% Brix	pH	g/L TA	g/L Tartaric Acid	g/L Malic Acid	g/L Lactic Acid
Final Average	*9/15/2008*	Final	*>2.00*	*17.4*	*3.02*	*10.0*	*5.0*	*2.9*	*0.2*

Chardonnay vine in a Seneca Lake vineyard infected with grapevine leafroll-associated viruses. Photo taken September 29, 2008

Photo by Tim Martinson

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Leafroll delays ripening in Chardonnay

Tim Martinson
Marc Fuchs

Last year, we sampled fruit from red varieties with visible grapevine leafroll symptoms, and found significantly different fruit chemistry at harvest. Most notably, brix was 1 to 4 º lower in leafroll-infected vines. Here are some results from recent fruit sampling in two Chardonnay blocks (3 different samples) in a Seneca lake vineyard. Note the much lower brix (3-5º lower) and higher TAs (3 to 6 g higher) in the vines with severe leafroll symptoms (photo).

A complete article on our grapevine leafroll survey was printed in the September *Finger Lakes Vineyard Notes*, and is also available online at:
http://blogs.cce.cornell.edu/grapes/

Fruit chemistry in side-by-side Chardonnay vines

date	sample	brix	ph	TA
9/15	leafroll	13.9	2.94	14.3
	no leafroll	18.6	3.33	9.3
9/29	leafroll	15.3	3.11	12.4
	no leafroll	20.3	3.29	7.9
9/29	leafroll	16.3	3.35	10.0
	no leafroll	19.9	3.37	7.6

50-berry samples, 10 from each of 5 vines.