

# VERAISON TO HARVEST

Statewide Vineyard Crop Development Update #9



Cornell University  
Cooperative Extension

November 12, 2009

Edited by Tim Martinson and Chris Gerling

## Final Issue...

### HARVEST REPORT 2009: THE WAITING IS THE HARDEST PART.

*Chris Gerling, Statewide Extension Enology*

In late October of 2008, I talked to winemakers from across the state to get their impressions of the season, the harvest and what kind of wines we might expect. Making contact this year to ask the same questions, I noted one area of contrast fairly quickly. As Dave Breeden at **Sheldrake Point** told me, "I'm happy to share my thoughts, but we won't be harvesting Riesling, Cab Franc or Cab Sauv for a couple of weeks yet." "Waiting is the tactic that is both physically easiest and emotionally hardest on winemakers and vineyard managers, and 2009 has featured plenty of it. While having Halloween serve as more of a checkpoint than a finish line may be one of the notable features of the season, however, delays are not all there is to talk about. In a year where the challenges were plentiful and the degree days were not, winemakers and vineyard managers used all of the tools at their disposal to focus on producing high-quality cool climate wines.

In a general sense, we've had a pretty good idea about the look and feel of 2009 for quite some time. The tone was set early on as late freezes and ill-timed moisture wreaked havoc on fruit set in Western NY and on Long Island, lowering crop levels by half or more in some cases. The silver lining to the apparent disaster is that 2009 was a fantastic year to have some pre-thinning. This idea was echoed by Christopher Tracy of **Channing Daughters**, who explained, "what we have will be super; there's just not that much of it." And while there's no getting around the basic truths that the season was a.) cool and b.) wet, it was consistently so, and this consistency gave people the opportunity to adjust. In the Finger Lakes, where nature didn't thin, people did. As John Herbert at **Wagner** said, "We saw this coming, so we thinned most everything, and we thinned the Pinot Noir twice." Mario Mazza of **Mazza Vineyards and Mazza Chautauqua** said that shoot thinning, especially for white hybrids, "paid huge dividends."

*Continued on Page 2*



*Finger Lakes: The 2009 harvest is now behind us. Steven Lerch (Research Support Specialist), Becky Nelson (Enology graduate student), and John Emery (Spouse and volunteer) load Riesling into the truck for processing at the Vinification and Brewing Laboratory in Geneva.*

*Photo by Anna Katharine Mansfield*

## ANNOUNCING "THE CELLAR DWELLER"

*A new newsletter from your Enology Extension Team.*

*Anna Katharine Mansfield and Chris Gerling*

Why should growers have all the fun? The season for Veraison to Harvest has come and gone, but your work isn't finished... all the grapes you labored over in the vineyard are now somewhere in the winemaking pipeline, and there are still plenty of decisions to be made. To continue to support these your efforts, the Cornell Enology Extension Lab is pleased to introduce The Cellar Dweller, a bi-monthly enology newsletter designed to get timely enology information to you when you need it. If you're on the *Veraison to Harvest* e-list, we'll be sending you the first edition of The Cellar Dweller in about two weeks.

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After the thinning came the waiting. “We didn’t touch a grape in September,” said Barry Tortolon of **Rooster Hill**. Dave Breeden estimates that they are picking on a schedule that’s about three full weeks behind last year. Waiting would not be a viable option if the grapes weren’t clean, however, and all of the winemakers were quick to praise the heroic efforts of vineyard personnel in keeping up with the sprays and canopy management. In a year plant pathologists have described as ready-made for powdery mildew, all winemakers were quick to praise tireless work from their outdoor counterparts. John Herbert said the words every vineyard manager loves to hear: “We didn’t pick on disease pressure at all.”

The varieties we usually describe as “early” have been praised for having excellent varietal character and Gewurztraminer was mentioned more than once as being a highlight to date. People are also happy with Pinot Noir, and I would definitely put this info into the category of pleasant surprise. Along with Gewz., Christopher Tracy is excited by Pinot Gris, Sauvignon Blanc, Tocai and more. Mario Mazza said he has seen some “fantastic whites,” and quite good reds where the vineyard was balanced. “The acids are a little high” was a phrase I heard repeatedly, but everyone had a plan and was dealing accordingly. Dave Breeden went further, saying, “we usually have to add acid to some of these early wines, so this year we’re saving money.” A fair amount of acid reduction is happening in

the juice, because, as Barry Tortolon puts it, “the juice seems indestructible compared to the wine.” The later reds are just now happening or have yet to happen for the most part, but Dave Breeden sees no green flavors, and Peter Bell at **Fox Run** is seeing the best color he can remember in Lemberger.

In the twenty-first century, we have apparently adopted a triennial cycle of cold, wet seasons. 2000, 2003, 2006 and now 2009 have distinguished themselves as years where money could be saved on sunscreen but not spray materials. But when the winemakers looked back on the previous gray years, things seemed a lot brighter this time around. 2009 is not as “wrenching,” as Peter Bell put it, and I don’t think it’s because the weather was so much more favorable. My theory is that New York vineyards and wineries are gaining experience and sophistication, and they are responding more quickly and accurately to changing conditions. This is not to say our troubles are behind us, or even that we’re out of the woods this year (we’re not even out of the vineyard). The point is that we will expect excellent wines from New York State in 2009, and, all things considered, I think that’s really saying something about where this industry is and where it’s going. Just you wait.

## COMPARING PRE-HARVEST FRUIT DEVELOPMENT IN 2007, 2008, AND 2009

*Timothy E. Martinson*

One of the more valuable aspects of collecting pre-harvest berry samples in 60-80 vineyard blocks for *Veraison to Harvest* is that we are building up a historical record of fruit development in different years. We now have information on berry weight, brix, pH, and titratable acidity for three growing seasons, starting in 2007. While readers have seen these numbers week by week with each issue, we have not presented this information in summary graphs before.

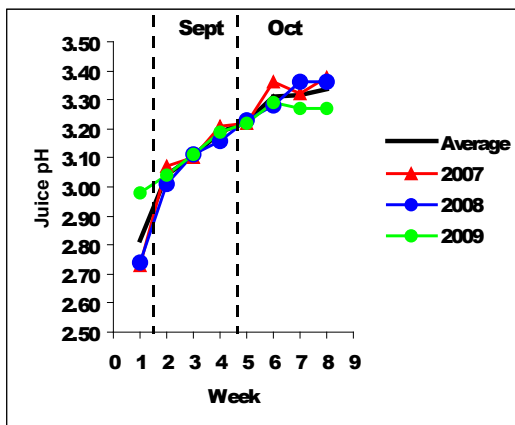
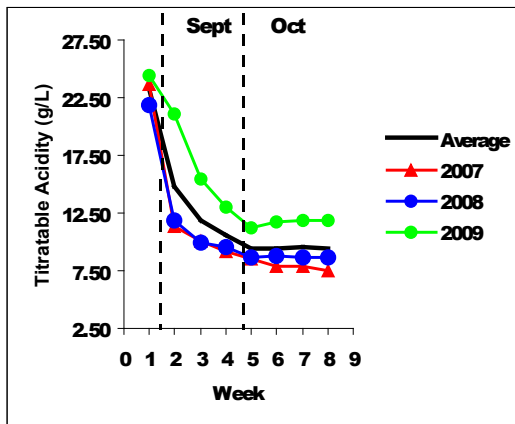
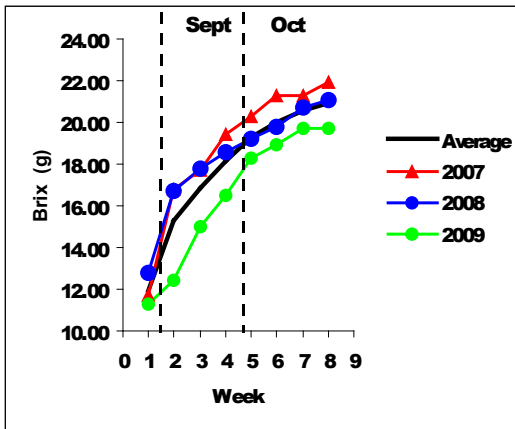
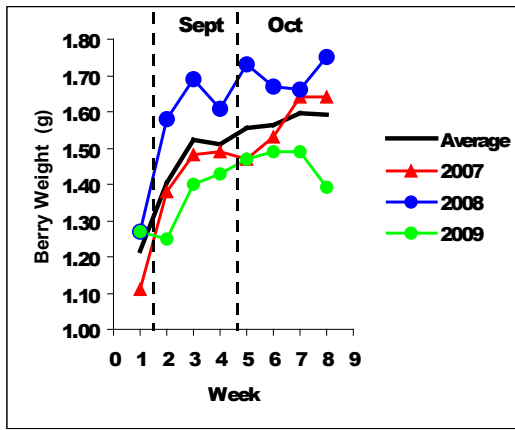
On the following pages, I have graphed seasonal trends in these maturity indicators for Cabernet Franc, Riesling, Merlot, Traminette, and Noiret. I selected these because we’ve sampled from several blocks of these five varieties over each of the three years. Please note that the numbers used to produce these graphs are averages from several blocks in different regions of New York, and not from individual vineyards. This means that regional variations in degree days, rainfall, management or other factors are ‘averaged out’. In other words, the graphs reflect the overall ‘average’ conditions in New York in the 3 years we covered - and obscure differences you might expect between Long Island, Finger Lakes, Hudson Valley and Lake Erie regions, for example.

The ‘seasonal signal’ from these 3 years came through loud and clear. Across the board, brix accumulation was delayed by around 2 weeks compared to the average (or 3 wk, compared to warm 2007). Ditto for drops in titratable acidity - although some varieties (eg Riesling) came close to the average at harvest, while others (Cabernet Franc) never made it.

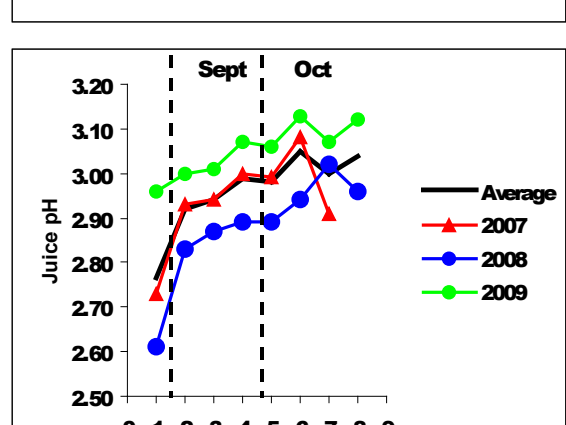
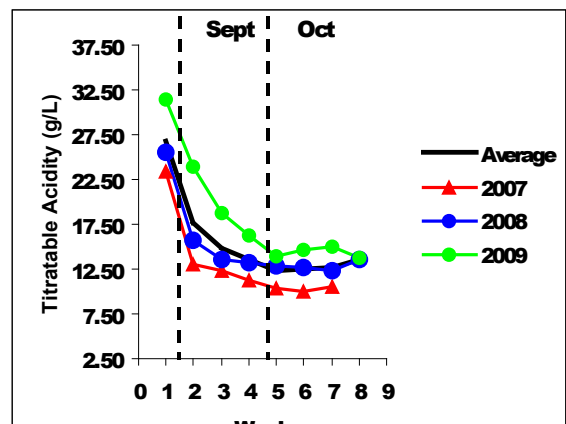
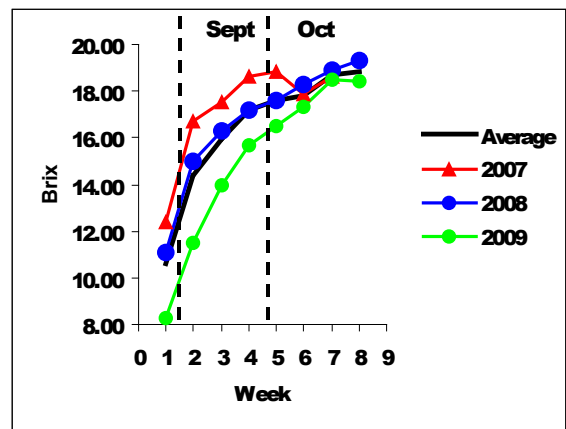
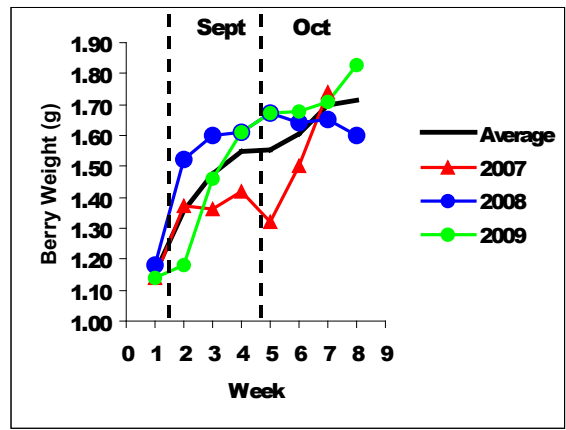
Juice pH was higher at a given brix/TA in 2009 on the whites (Riesling and Traminette) in particular. This may reflect higher uptake of potassium (K) - common in a wetter season - and possibly a higher proportion of malic acid in the juice. In any event, pH didn’t reach a high enough level to cause concerns about wine stability.

The good news is that the fruit chemistry for some varieties (notably Riesling and Traminette) - though lagging behind our

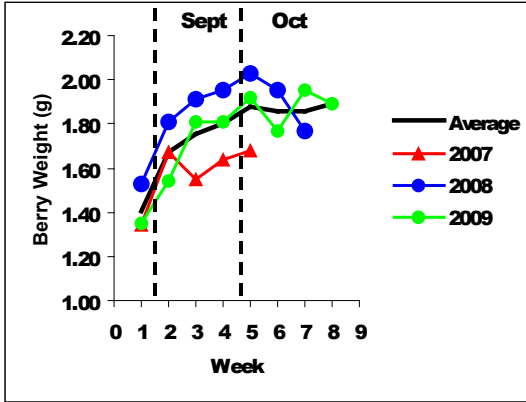
### Cabernet Franc



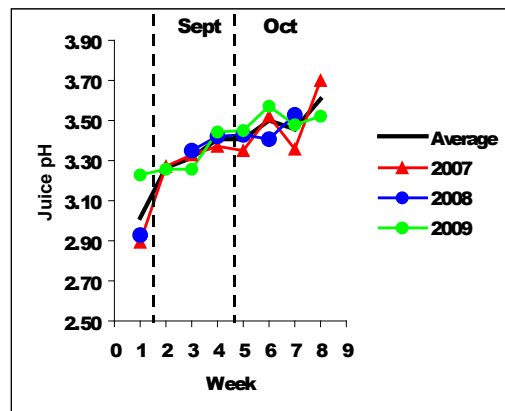
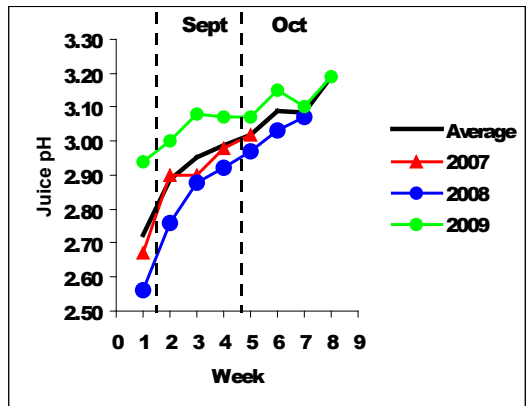
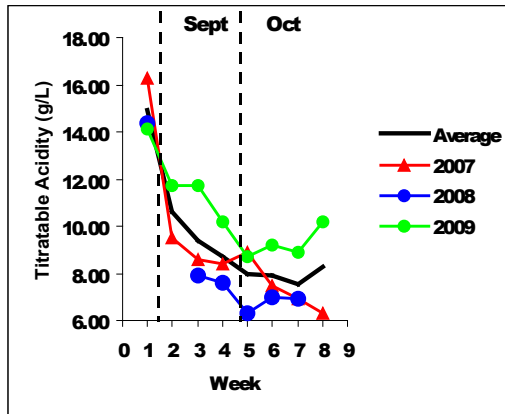
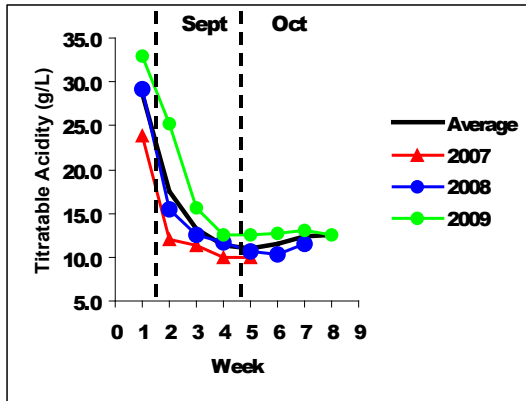
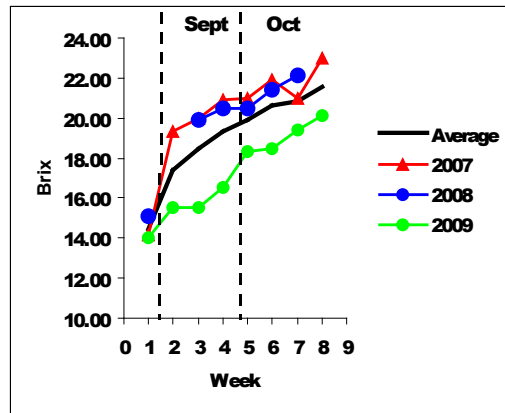
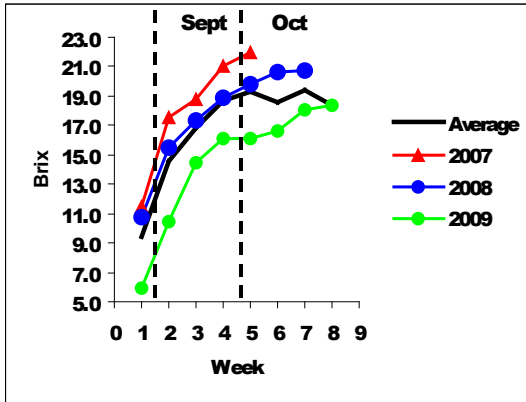
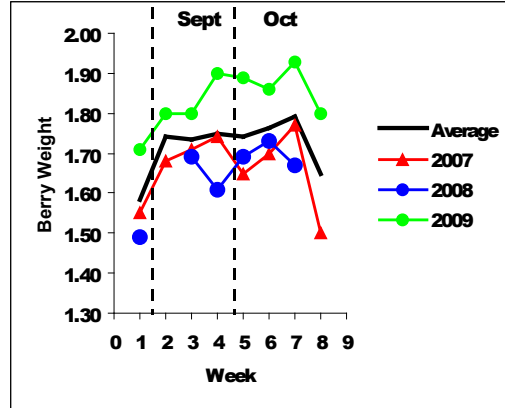
### Riesling



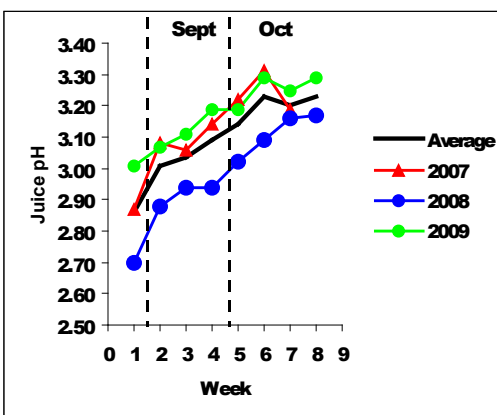
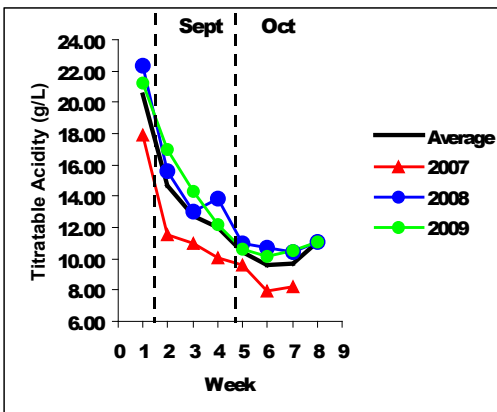
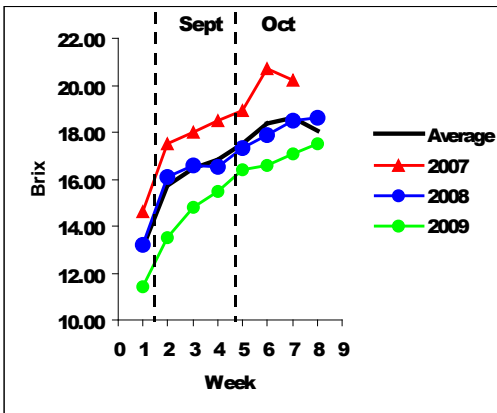
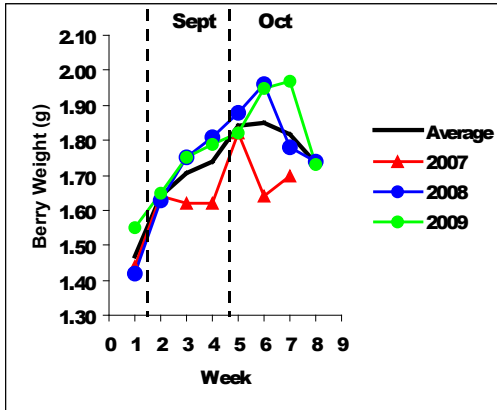
### Traminette



### Merlot



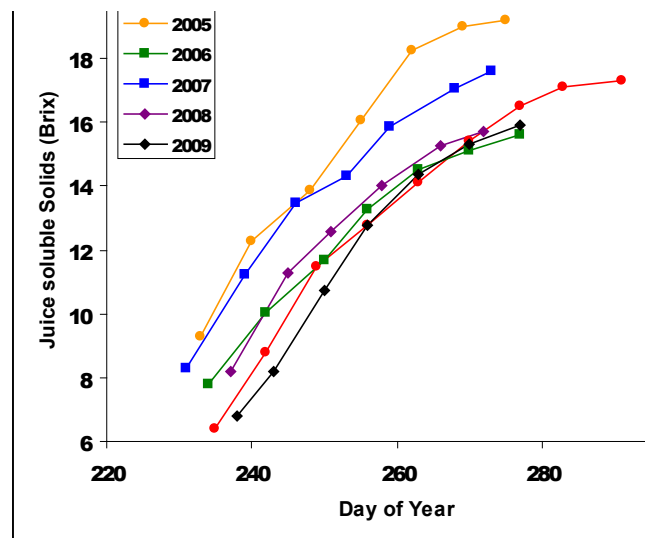
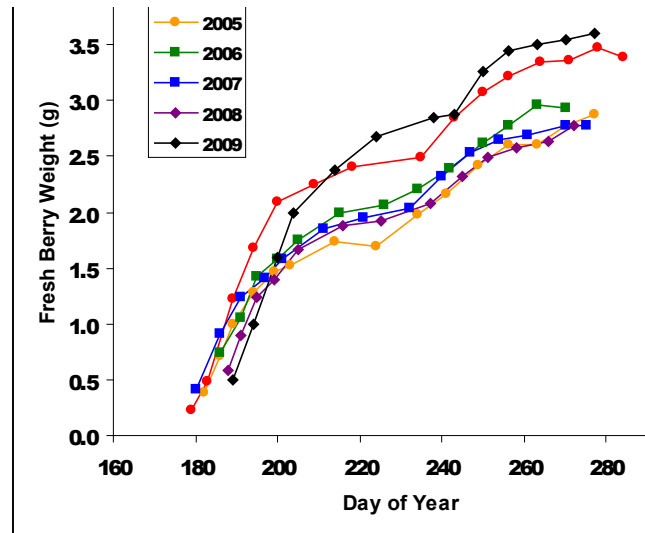
## Noiret



## CONCORD BERRY DEVELOPMENT : SIX YEARS OF GROWTH CURVES *Terry Bates*

Here are historical Concord berry growth curves and juice soluble solids accumulation from 120 node pruned vines in the Lake Erie region from 2004 to 2009. Unlike the previous *Veraison to Harvest Concord* charts, data from the past six seasons is expressed according to the “day of the year” instead of days from bloom or veraison. The spread in the curves gives an indication of the seasonal variation in fruit development.

Berry weight and Juice Soluble Solids, 2005-09  
(180 = June 30; 270 = end of October)

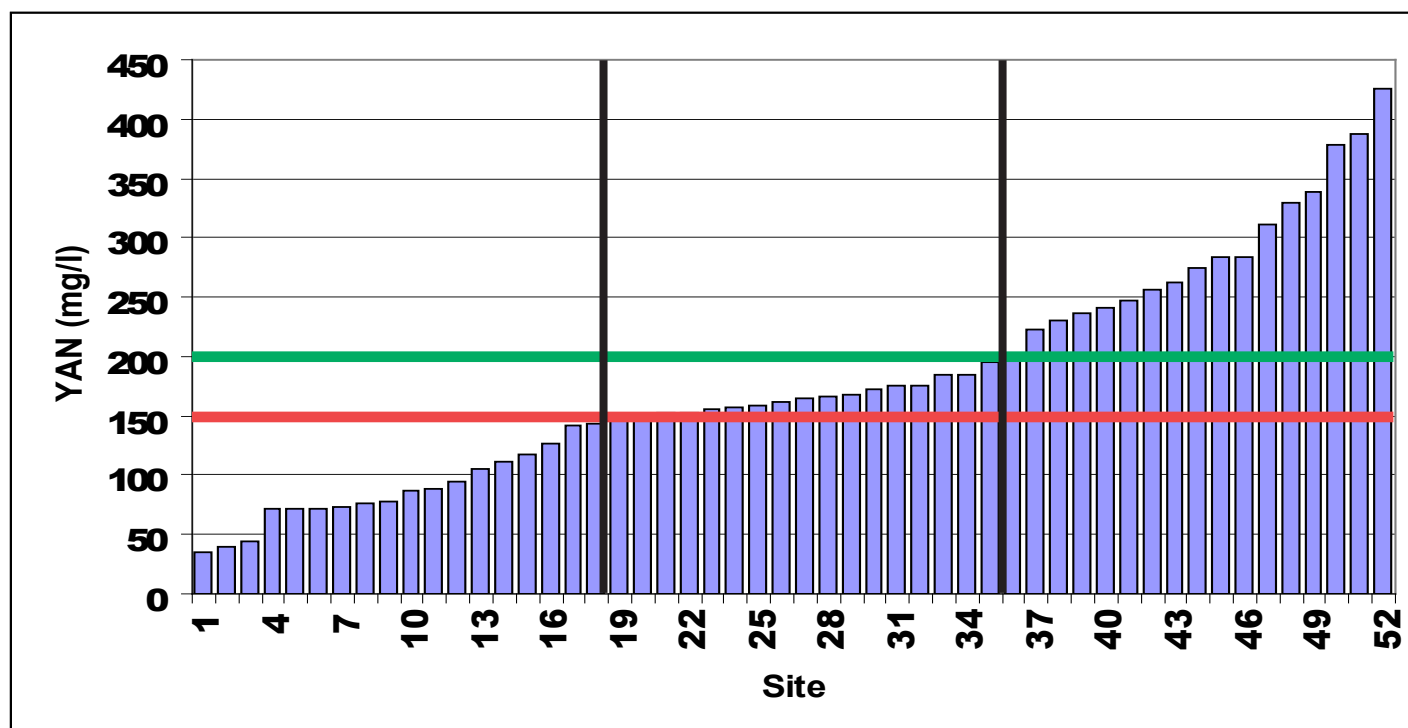


## YEAST ASSIMILABLE NITROGEN- SEASONAL SUMMARY

*Tim Martinson & Anna Katharine Mansfield*

**Yeast Available Nitrogen (YAN)** represents the sum of Ammonia (amm) and Free Amino Nitrogen (FAN). Nitrogen levels play a large role in yeast nutrition during fermentation and deficiencies can lead to stressed and/or sluggish fermentations and potential off-aromas. The generally agreed upon minimum YAN for a successful fermentation is in the range of **150 mg/L**, while the optimum levels are considered to be at least **200 mg/L** and often higher

We've summarized all the YAN values from the 2009 juice samples in the figure and table below. Note that about 1/3 of the samples fell below the minimum 150 mg/L level, 1/3 were borderline between 150-200 mg/L, and 1/3 were above 200 mg/L. Clearly there is a lot of variability in the results, and a clear rationale for wineries to test must samples before fermentation to determine whether additional yeast nutrients or DAP may be needed (See Anna Katharine Mansfield's article in *Veraison to Harvest* #6).



**Why are YAN values so variable?** In two adjacent Finger Lakes vineyards, YAN in one was 77 mg/L, while in an adjacent vineyard we saw 257 mg/L. Typically in past years, YAN has been lower in dry years, and higher in wet years such as this one - the supposition being that nitrogen availability is restricted in low years. With the frequent rainfall during '09, could the low YAN in some vineyards be related to leaching of N out of gravelly soils (while N availability was higher in other soils)? Clearly we don't understand what factors in the vineyard influence YAN levels at the end of the season. We're interested in taking a closer look at this in a future research project in 2010.

Region	Harvest Date	Variety	Description	Ammonium mg/L	FAN mg/L	YAN mg/L
Finger Lakes	6-Oct	Chardonnay	Cayuga Lake	31	57	88
Finger Lakes	22-Sep	Leon Millot	Shoot thin	14	64	78
Finger Lakes	22-Sep	Leon Millot	No shoot thin	13	58	71
Finger Lakes	29-Sep	Seyval Blanc	cluster thin/shoot thin	16	146	162

Region	Harvest Date	Variety	Description	Ammonium mg/L	FAN mg/L	YAN mg/L
Finger Lakes	29-Sep	Seyval Blanc	no cluster/shoot thin	12	115	127
Hudson Valley	28-Sep	Marechal Foch	HV Lab	35	228	263
Hudson Valley	21-Sep	Seyval Blanc	W. Hudson Valley	83	139	222
Lake Erie	5-Oct	Chancellor	Mechanical shoot thin	52	123	175
Lake Erie	5-Oct	Chancellor	Mechanical cluster thin	30	154	184
Lake Erie	5-Oct	Chancellor	no shoot cluster thin	28	144	172
Long Island	5-Oct	Chardonnay	S side North fork	129	210	339
Long Island	5-Oct	Sauv. blanc	S side North Fork	32	164	196
Finger Lakes	12-Oct	Vignoles	Shoot thin	0	257	257
Finger Lakes	12-Oct	Vignoles	No shoot thin	1	283	284
Finger Lakes	12-Oct	Traminette	Shoot thin	0	77	77
Finger Lakes	12-Oct	Traminette	No shoot thin	0	71	71
Finger Lakes	12-Oct	Concord	Keuka Lake	0	105	105
Long Island	12-Oct	Sauvignon Blanc	South Side North Fork	91	139	230
Hudson Valley	12-Oct	Pinot noir	HV Lab	91	288	379
Hudson Valley	12-Oct	Seyval Blanc	HV Lab	5	197	202
Hudson Valley	12-Oct	Pinot noir	Mid Valley	81	230	311
Hudson Valley	12-Oct	Chardonnay	North Hudson valley	76	207	283
Finger Lakes	19-Oct	Cabernet Franc	E Seneca Lake	12	32	44
Finger Lakes	19-Oct	Cabernet Franc	Cayuga Lake	4	35	39
Finger Lakes	19-Oct	Catawba	Cayuga Lake	25	48	73
Finger Lakes	19-Oct	Riesling	E Seneca shoot thin	100	58	158
Finger Lakes	19-Oct	Riesling	E Seneca no shoot thin	95	73	168
Finger Lakes	19-Oct	Riesling	E Seneca Lake	88	55	143
Hudson Valley	19-Oct	Cabernet Franc	HV Lab	51	113	164
Hudson Valley	19-Oct	Chardonnay	HV Lab	147	278	425
Hudson Valley	19-Oct	Chardonnay	N HudsonValley	100	288	388
Hudson Valley	19-Oct	Noiret	HV Lab	62	212	274
Hudson Valley	19-Oct	Noiret	W Hudson Valley	33	142	175
Hudson Valley	19-Oct	Riesling	N HudsonValley	98	87	185
Hudson Valley	19-Oct	Riesling	HV Lab	74	92	166
Hudson Valley	19-Oct	Traminette	HV Lab	25	305	330
Hudson Valley	19-Oct	Traminette	W. Hudson Valley	11	101	112
Lake Erie	19-Oct	Noiret	Sheridan -normal	32	115	147
Lake Erie	19-Oct	Noiret	Sheridan -crown gall	37	118	155
Lake Erie	19-Oct	Traminette	No shoot thin	10	108	118
Lake Erie	19-Oct	Traminette	Shoot thin	12	60	72
Long Island	19-Oct	Merlot		38	104	142
Long Island	19-Oct	Sauvignon blanc	S side N Fork	100	141	241
Lake Erie	19-Oct	Traminette	No shoot thin (2)	22	214	236
Lake Erie	26-Oct	Traminette	Shoot thin (2)	23	224	247
Lake Erie	26-Oct	Traminette	Shoot thin (1)	8	149	157
Lake Erie	26-Oct	Cabernet Franc	Fredonia	23	71	94
Lake Erie	26-Oct	Noiret	Sheridan no treatment	32	120	152
Lake Erie	26-Oct	Noiret	Sheridan Crown gall	33	119	152
Long Island	26-Oct	Merlot	N. side North fork	44	102	146
Finger Lakes	26-Oct	Cabernet Franc	E Seneca lake	1	34	35
Finger Lakes	26-Oct	Catawba	Cayuga Lake	27	60	87

## Thanks...

It's been a pleasure to put together our third year of *Veraison to Harvest*, and we hope you have enjoyed it and found it useful. As in previous years, this has been a group effort. Here are the people involved:

**Finger Lakes:** Hans Walter-Peterson and Bill Wilsey

**Lake Erie:** Jodi Creasap-Gee, Terry Bates, Paula Joy, and Madonna Martin.

**Hudson Valley:** Stephen Hoying, Steven McKay, Joe Whalen and Jordan Gianteforte.

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

**Geneva:** Tim Martinson, Chris Gerling, Anna Katharine Mansfield, Ben Gavitt, and Becky Nelson

*Special thanks to all the **Finger Lakes, Lake Erie, Hudson Valley, and Long Island** growers who allowed us to sample fruit from their vineyards. This year we collected samples from **70 New York Vineyard blocks**.*

Finally, we would like to thank the **New York Wine and Grape Foundation's Total Quality Focus** program, which provided funding to support this newsletter

- *Tim Martinson & Chris Gerling, editors.*



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*Finger Lakes Grape Program*

*Lake Erie Regional Grape Program*

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