



# Fruit Chemistry Trends: 2007 - 2010

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The 2010 growing season produced fruit that had consistently higher juice pH and lower titratable acidity than in the previous three years. It was a mirror image of 2009 - which of course had low pH, lower brix and higher titratable acidity at the end of the day.

On the following three pages, we show comparative trends in berry size, brix, pH, and TA for five varieties (Cabernet franc, Merlot, Noiret, Riesling and Traminette) for which we collected berry samples from at least five and up to 12 vineyards for *Veraison to Harvest*. Each year's data, from 2007 to 2010 is plotted, along with an average (black line) over the four years.

Weekly samples span September and October – this year we started sampling one week earlier (August 23) than the other years - but also ended a week earlier. Some general trends:

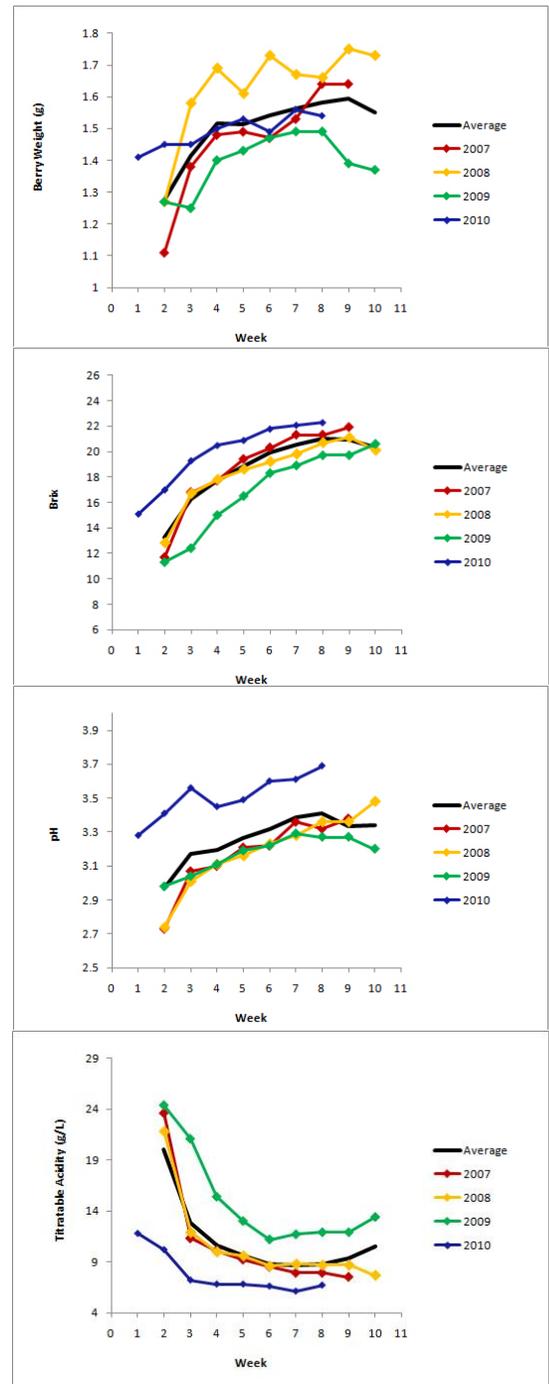
- **Berry weights** tracked the 4 yr average -not notably larger or smaller, on average.
- **Brix** accumulated earlier, but the rate of increase leveled off in mid-September, ending up 1 to 3 degrees higher at harvest. We didn't see the 26 brix fruit that some expected.
- **Juice pH** started out high, and remained consistently higher than the previous three years.
- **Titratable acidity** dropped faster, and ended up 3-6 g/L lower at harvest than last year.

Across varieties, fruit from 2010 should have a very different balance of sugars and acidity than in typical years - and more reminiscent of warmer climate regions than what is typical for our cool-climate region in NY.

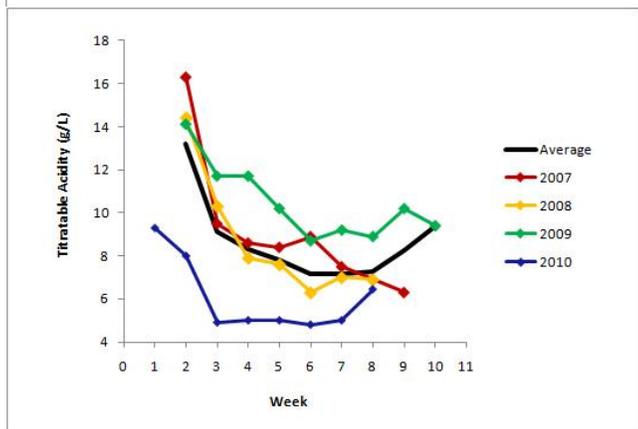
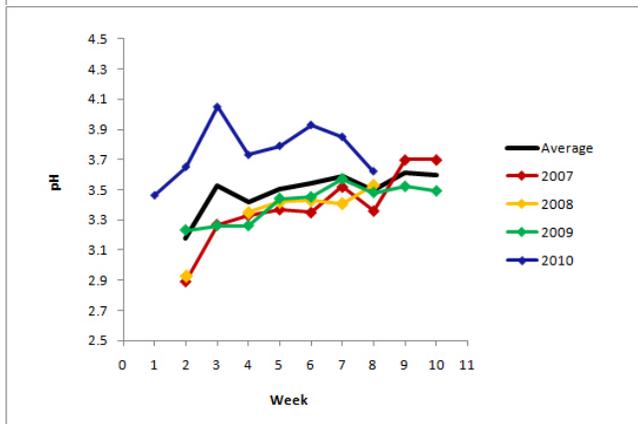
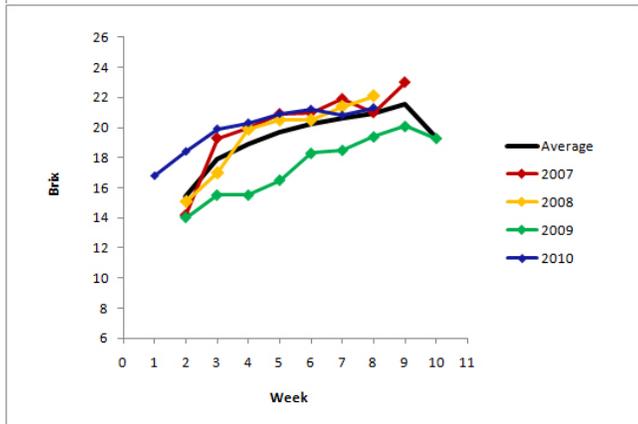
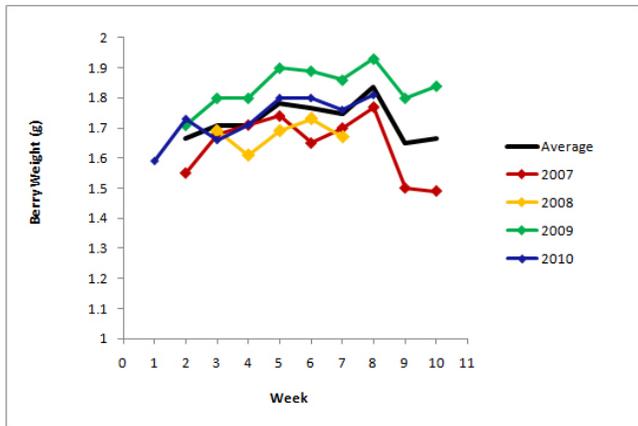
Each variety responded in its own way to the extreme heat accumulation NY experienced through early September — which was followed by cooler, more typical ripening weather. Note, for example, that TAs leveled off in Cab Franc and Merlot, but kept dropping in Noiret. Riesling TAs also leveled out - but at 9 g/L instead of 6 g/l like Cab Franc and Merlot.

This underscores the point that in an 'extreme' year like 2010, the normal sequence of ripening of different varieties can change, because each variety responds in its individual way to climate variation. Thanks to all the wineries and vineyards across NY that have provided fruit samples for inclusion in *Veraison to Harvest* over the past four years.

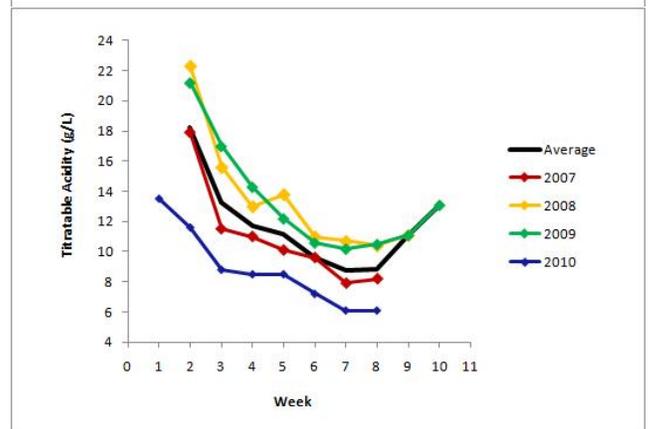
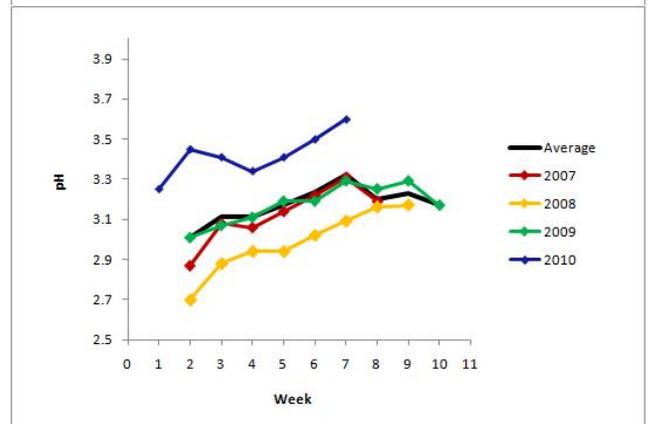
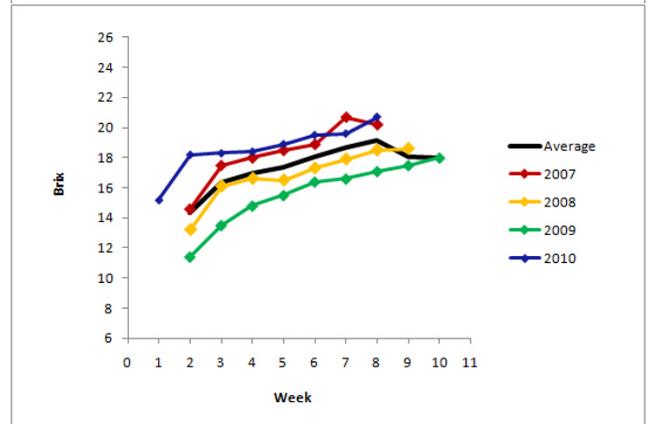
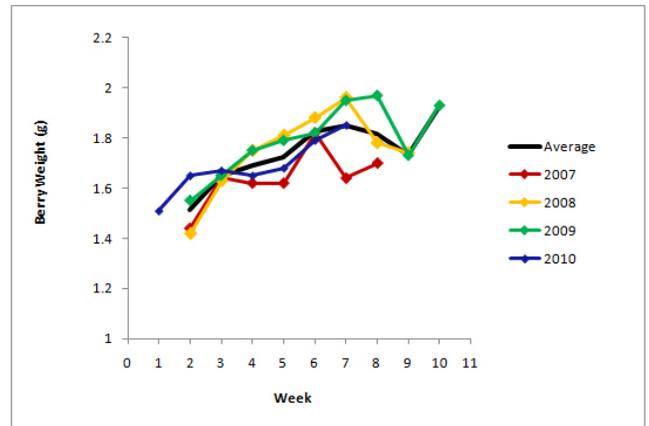
Cabernet Franc  
Top to Bottom: Berry Wt, Brix, pH, TA



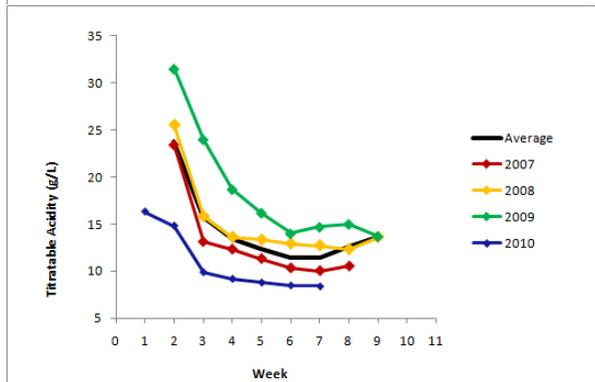
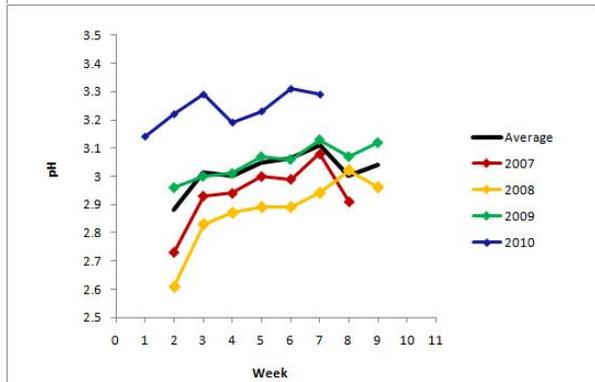
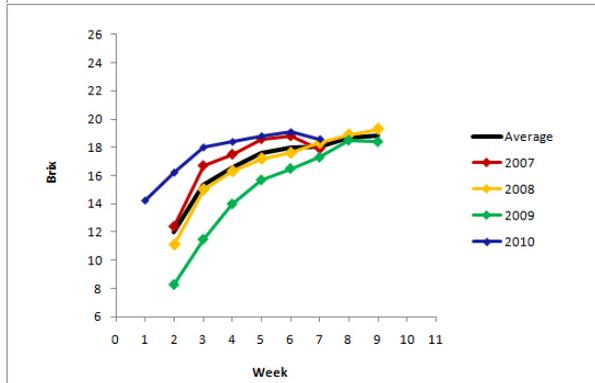
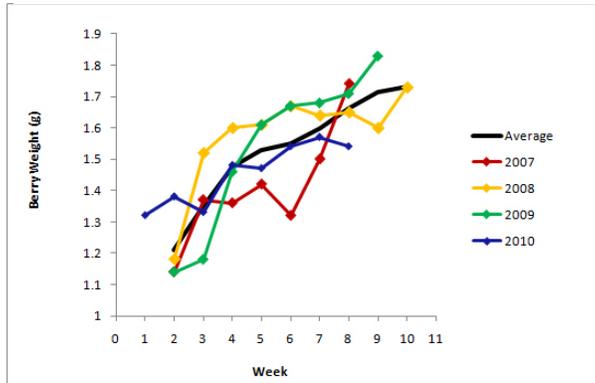
Merlot  
Top to Bottom: Berry Wt, Brix, pH, TA



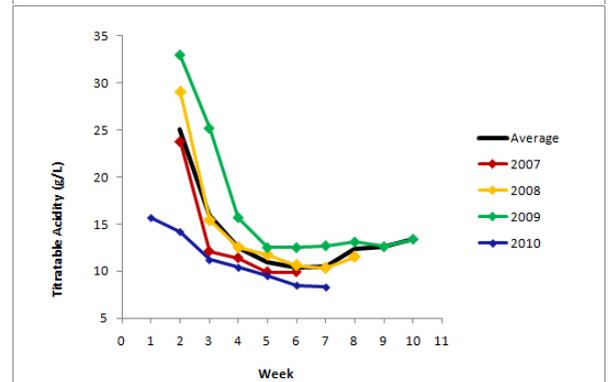
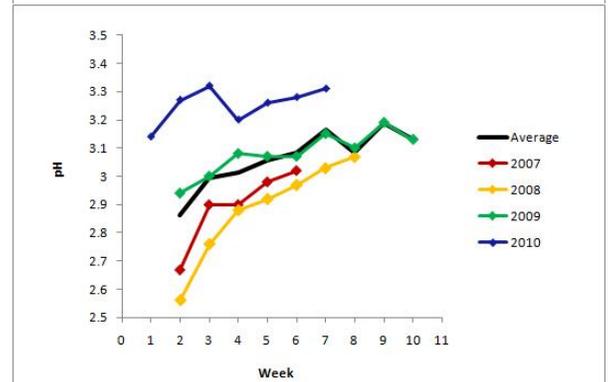
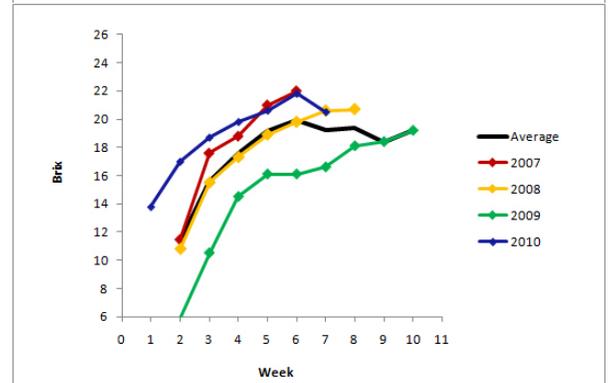
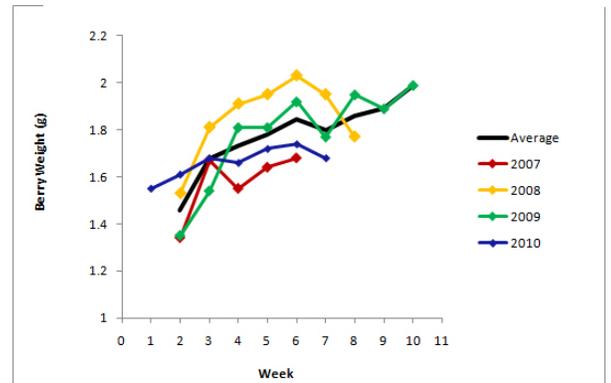
Noiret  
Top to Bottom: Berry Wt, Brix, pH, TA



Riesling  
Top to Bottom: Berry Wt, Brix, pH, TA



Traminette  
Top to Bottom: Berry Wt, Brix, pH, TA



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