The Lake Erie Regional Grape Program

Electronic Crop Update for August 22, 2013

IN THIS UPDATE:

Please visit our LERGP Website at: http://lergp.cce.cornell.edu/ for a detailed calendar. Please remember to RSVP for those events that require one! UPCOMING EVENTS are also listed toward the bottom of this Update.

Please remember to let us know if you have changed or are in the process of changing your email address so we can keep the Electronic Crop Update coming to your inbox!
Please email Edith at: emb35@cornell.edu.

From North East PA

FROM NORTH EAST, PA.: Bryan Hed

Weather: Here at the North East PA lab, we accumulated 353 growing degree days (gdds) during the first three weeks of August, which is still below average for the month. Our gdd total since April 1 equals 1901. No rainfall was recorded within the past week and so our August rainfall remains at 1.06 inches (on the dry side). Though August has so far been on the cool side of average, our forecast looks positive in terms of heat and sunshine for ripening.

Phenology: At our location, we recorded veraison for Concord grape on the 20/21 of August, which is about 68 days from 50% bloom.

Diseases: No infection periods have occurred for downy mildew in the past week, and I am not observing much infection on leaves in our Niagara blocks to be concerned about at this time. However, continue to scout your vineyards to maintain a handle on this disease, as letting it get out of control can strip leaves from vines and leave you with less ripening power to mature the crop.

On the other hand, powdery mildew, fueled by warm, humid days, continues progressing on leaves of all varieties, every day, without rainfall. Wine varieties with leaves that have little or no resistance or tolerance to this disease, like those of *Vitis vinifera* and some of the more susceptible French hybrids, may need additional powdery mildew sprays for a while longer to insure proper ripening of fruit and canes, and maximum winter hardiness of woody structures. If you're doing summer shoot pruning, remember to leave at least 13-15 healthy leaves per shoot to properly ripen the crop. Juice grape vineyards that bear excessive crops, will need all the available leaf area to stay on course through September, and an eradicant like Nutrol (plus a spreader) can help to keep powdery mildew development in check on leaves. In our trials with late season Nutrol applications (around veraison) on Concord grape, we have seen modest reductions in powdery mildew development of about 25-30% with one to two 8 lb/A applications. Juice grape vineyards with clean canopies and average to slightly above average crops are good to go at this point.

Fresh black rot infections continue to show up on ripening Concord fruit, though vines no longer need protection against this disease. These infections probably occurred 3-4 weeks ago and are the result of rainfall events on July 22-23 and/or July 27th. What's noteworthy about this is that a fair percentage of Concord berries were susceptible to black rot for 5-6 weeks after bloom in 2013. Infected fruit will eventually dry down to hard black raisin-like structures that will need to be removed from the trellis during the dormant period; either as part of the dormant pruning process or through a post-pruning follow up operation in machine pruned vineyards. Trellis sanitation that includes removal of all old clusters is an important part of controlling this disease from one year to the next and is absolutely essential in vineyards hard hit with infected fruit.

Wine grape growers of varieties with compact clusters will want to make an application of a Botrytis specific fungicide around veraison. Fortunately, we have several effective materials (Elevate, Rovral, Vangard/Switch/Scala, Endura). This application should be standard procedure for growers of Riesling, Pinot Noir, Pinot Gris, Vignoles, Chardonnay, and other varieties with compact clusters.

In The Vineyard

IN THE VINEYARD with Andy Muza

Grape Berry Moth (GBM) – According to the GBM Degree Day Model the majority of sites in the Lake Erie Region (i.e., High/Severe Risk and where scouting has indicated more than 15% damaged clusters) should have already received an insecticide application for the third generation of GBM.

However, in Niagara County, NY, problem sites around the Ransomville area should receive an insecticide application with a contact mode of action (e.g., generic pyrethroids, Baythroid, Brigade/Capture, Danitol) by Sunday (8/25) when 1720 DD is predicted.

Although this season a 4th generation of GBM should not be a problem, growers should still be checking problem areas up to harvest to determine if this season's management strategies worked. Record the extent of GBM injury, review application timings and insecticides used, and determine if a different strategy is needed for next season.

Contact Tim Weigle or me if you need assistance in developing a different GBM management program for next season.

NYS IPM FACT SHEETS FOR GRAPES:

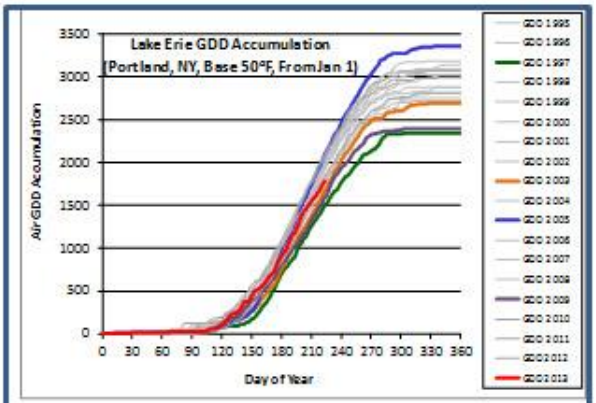
- Powdery Mildew: http://nysipm.cornell.edu/factsheets/grapes/diseases/grape_pm.pdf
- Downy Mildew: http://nysipm.cornell.edu/factsheets/grapes/diseases/downy_mildew.pdf
- Black Rot: http://nysipm.cornell.edu/factsheets/grapes/diseases/grape_br.pdf
- Grape Berry Moth: http://nysipm.cornell.edu/factsheets/grapes/pests/gbm/gbm.pdf

From The Desk Of Terry Bates

The 2013 Lake Erie Growing Season and Concord Development...so far...

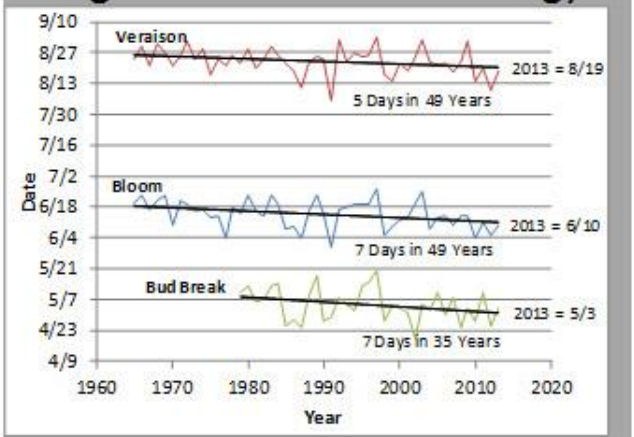
Terry Bates, 8/21/2013

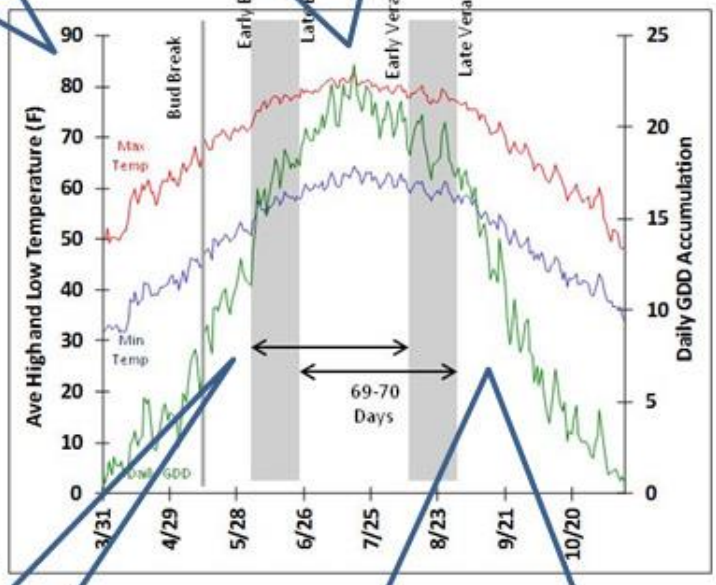
Typical temperature and Daily GDDs in the Lake Erie Region. CLEREL tracks environmental parameters to predict Concord development and ripening potential. Early season temperatures influence bud break and bloom and late season temps and day length influence ripening. Mid-season GDD is less important when the temps are between 60-90 F.

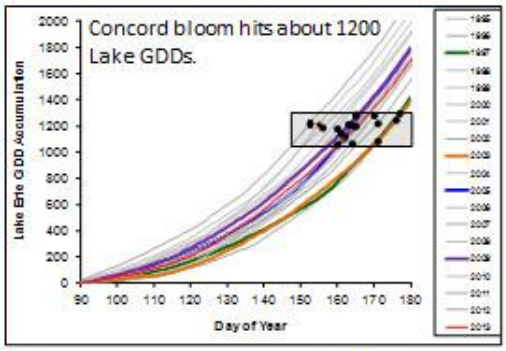


2013 Air GDD have been moderate with bloom and veraison dates 4 days ahead of the long term mean.

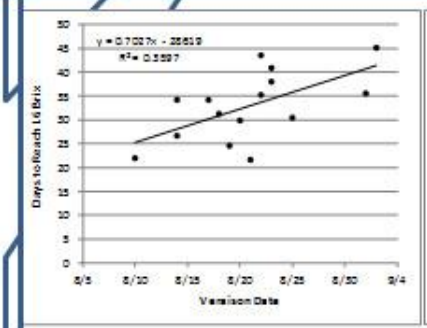
Long-Term Concord Phenology

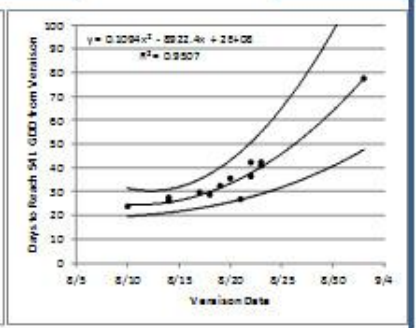






Early season air temperatures influence vine phenology. Because Lake Erie temps influences air temperature, we track lake temperatures in April and May to predict Concord bloom. In 2013, Lake GDD was close to average leading to an average bloom prediction – which turned out to be June 10th.





Bloom sets the Concord clock with around 69-70 days between bloom and veraison in most years. Early bloom and early veraison means the fruit starts ripening in warmer temps and longer days; therefore, the days it takes to reach 16 Brix is reduced (left chart). Late veraison means colder temps and shorter days and longer ripening. Concord fruit hits 16 Brix about 540 GDD after veraison. The earlier the veraison date, the quicker we get to 540 GDD. In 2013, veraison was 8/19 with a projection of 35-40 days to hit 16 Brix. Of course, the large crop size will put that prediction on the high side.

WEATHER DATA: Edith Byrne

Weather Data

DATE/YEAR	HIGH	LOW	DAILY PRECIP.	GDDs	*TOTAL* APRIL GDDs	*TOTAL* JAN GDDs
Week 8/7/13	81	65	0.00	23	1664.5	1690
Week 8/14/13	66	56	0.00	11	1779	1804.5
Week 8/21/13	***80***	***64***	***0.00***	***22***	***1897.5***	***1923***
Week 8/21/12	***74***	***52***	***0.00***	***13***	***2111.5***	***2242***
AVERAGE	***76.8***	***58.7***	***0.08***	***17.79***	***1951.78***	***1976.70***

GDDs accumulated Aug 1-21, 2013 = 350.50 ***GDDs accumulated Aug 1-21, 2012 = 403.50***

GDDs accumulated July 2013 = 653.5 ***GDDs accumulated July 2012 = 725.50***

GDDs accumulated June 2013 = 455.0 ***GDDs accumulated June 2012 = 532.50***

GDDs accumulated May 2013 = 260.5 ***GDDs accumulated May 2012 = 393***

Average ***GDDs accumulated through August 21 = 424.10***

Average ***GDDs accumulated whole month August = 614.05***

This year compared to AVERAGE: JAN. GDD: *BEHIND* 3.02 / APR. GDD: *BEHIND* 3.05

This year compared to 2012: JAN. GDD: *BEHIND* 17.93 / APR. GDD: *BEHIND* 12.03

	2013	*2012*
Average High July	73.21 (*last week 73.21*)	77.86 (*last week 77.86*)
Average Low July	59.93 (*last week 59.93*)	64.14 (*last week 64.14*)

August Rainfall amount = 2.43" *JULY Rainfall amount = 3.27"* *JUNE Rainfall amount = 7.69"*

Rainfall accumulation 1/1/13 through 8/7/13 = 26.68"

LERGP WEBSITE LINKS OF INTEREST –

- **PHENOLOGY INFORMATION:** http://lergp.cce.cornell.edu/submission.php?id=66&crumb=cultural%20practices|cultural_practices
- **Table for: Insecticides for use in NY and PA:** http://lergp.cce.cornell.edu/submission.php?id=69&crumb=ipm|ipm
- **Crop Estimation and Thinning Table:** http://nygpadmin.cce.cornell.edu/pdf/submission/pdf65_pdf.pdf

Go to http://lergp.cce.cornell.edu/ for a detailed calendar of events. ***Please remember to RSVP for those events that require one!***

PLEASE NOTE: ***Next Electronic Crop Update will be Thursday August 29, 2013***

Lake Erie Regional Grape Program Crop Update is an e-mail newsletter produced by the Lake Erie Regional Grape Program and sent out by subscription only. For subscription information, please call us at 716.792.2800 ext. 201. For any questions or comments on the format of this update please contact Tim Weigle at: thw4@cornell.edu.

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Appellation Cornell Newsletter Index: http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/
Veraison to Harvest newsletters: http://grapesandwine.cals.cornell.edu/cals/grapesandwine/veraison-to-harvest/index.cfm

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