



LERGP Crop Update July 16, 2015



Crop Updates will be delivered on a weekly basis through the growing season.

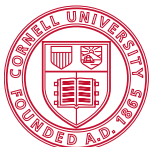
Wednesday, July 22, 2015- Last Coffee Pot Meeting of season!
10:00am- Paul Bencal, 2645 Albright Rd. Ransomville NY 14131

July 23- July 25- ASEV Conference, Dunkirk Clarion, Dunkirk NY 14048

August 5- Gravel Pit Park Twilight Meeting and Chicken BBQ

Use the included forms, go to our web-site or stop in the office to register.

****Check the web-site for more upcoming events and meetings.**



Cornell University

Building Strong and Vibrant New York Communities

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.



2015 Coffee Pot Meeting Schedule

May 6- 10:00am-Dan Sprague- 12435 Versailles Rd. Irving NY 14081

May 13- 10:00am- Phillip Baideme- 7935 Route 5, Westfield NY 14787

May 20- 10:00am- CLEREL, 6592 West Main Rd. Portland NY 14769

May 27- 10:00am-Nick Mobilia- Arrowhead Winery 12073 East Main Rd. North East PA

3:00pm-Evan Schiedel/Roy Orton- 10646 West Main Rd. Ripley NY 14775

June 3- 10:00am- Bob & Dawn Betts- 7365 East Route 20, Westfield NY 14787

3:00pm- North East Lab-662 N Cemetery Rd. North East PA 16428

June 10- 10:00am- Peter Loretto-10854 Versailles Plank Rd. North Collins NY 14111

3:00pm- Dave Nichols-1906 Ridge Rd. Lewiston NY 14092

June 17- 10:00am-Tom Tower 759 Lockport Rd. Youngstown NY 14174

3:00pm-Leo Hans-10929 West Perrysburg Rd. Perrysburg NY 14129

June 24- 10:00am- Kirk Hutchinson-4720 West Main Rd. Fredonia NY 14063

3:00pm- Brant Town Hall- 1294 Brant North Collins Rd. Brant NY 14027

July 1- 10:00am-Ted Byham 9207 West Lake Rd. Lake City PA 16423

3:00pm-Alicia Munch-761 Bradley Rd. Hanover NY 14136

July 8- 10:00am- Rosemary & Brenda Hayes- 6151 Route 5 Brocton NY 14716

July 15- 10:00am-Szklenski Farms- 8601 Slade Rd. Harborcreek PA 16421

July 22- 10:00am- Paul Bencal-2645 Albright Rd. Ransomville NY 14131

Grape Berry Moth Costs

GBM scouting reports seem to be a bit more variable this year. Some sites are experiencing higher levels of percent damage, while others seem to be about average. Many growers always spray the first generation and in some sites that has already wrapped up. Other growers still have time to scout and select a material based on the results of the scouting.

Unfortunately, when it comes to GBM, you get what you pay for. With some minor exceptions, the quality of GBM materials relate closely to the price of those materials. While that is not the case for fungicides, GBM materials seemed to be priced (coincidentally or not) relative to their effectiveness.

Some growers may see damage at 5% in their samples. If concerned about the margin of error and electing to spray, bifenthrin and leverage 360 can be relatively economical applications. Those materials in rotation can help prevent population growth that would lead to significant crop loss.

On the other side of things, we are seeing damage above 15% of clusters. With levels like that, it will be difficult to control GBM populations until harvest. Just about any labeled material seems to be effective enough to justify its cost in that situation. Anecdotal observation shows crop losses have the potential to exceed 90% if inexpensive materials are used. These high losses are often limited to a wooded edge. However, in an increasing number of cases that edge has expanded across the entire block.

These expensive materials are hard to swallow given the current state of the grape market. Coming in between 28 and nearly 50 per acre growers do need to save nearly a half-ton of grapes to put on two expensive materials. With growers putting on as many as 4, it may be closer to two tons. We have observed successful management and economic benefits, even when spending that kind of money on berry moth control. The expectation and hope is that with successive multi-year treatments the wooded edge will be limited to a smaller area. Future control may be a bit less expensive.

You've heard more about GBM from Andy and Tim. Following general recommendations can be difficult because there is so much variation from site to site. The underlying point here is that all of their recommendations have been observed to make economic sense, even during periods of low prices. The cost of letting the population get out of hand can be surprising, even to experts.

Cultural Practices

Luke Haggerty
Viticulture Extension Associate
Lake Erie Regional Grape Program

Flood Damage

During the early morning hours of July 14, areas between Westfield and Brocton received between 4 and 5.7 inches of rain in less than two hours. Later in the day this area received more rain raising the total between 6 to 7 inches of rain within 14 hours. This flood event added to our already wet year. A few area roads are closed for repairs, washouts left gravel deposits and debris in many vineyards, but my main concern is long term standing water. Many growers will have to wait for the ground and new layer of silt to dry up before they can start the cleanup process.

The persistent rains over the past seven weeks have saturated soils in most area vineyards, especially on the heavier ground. Places where the soils are saturated the vines are not able to uptake oxygen. This is called hypoxia. Without oxygen the roots are not able to pull up other nutrients and or water. When this happens, the vines' metabolic processes change and they start using stored carbohydrates to sustain them until the ground dries and they can go back to relying on photosynthesis.



Symptoms of hypoxia (waterlogged roots) have become very apparent across the region. Off colored/yellow leaves are a dead giveaway. The roots inability to pull up nutrients like nitrogen and potassium causes the discoloration. I have also started to see a decrease in growth and berry size in the extremely wet areas.



Short term hypoxia can decrease vigor, bring down berry size, and lower overall vine health. Moderate hypoxia can lead to ripening issues at harvest and decrease the fruitfulness of next year's buds. Severe hypoxia can lower vine health to the point of vine collapse/death.

Weather

Lake Erie Grape Region NEWA Weather Data

Location	Date	Avg. temp F (July 1-15)	Precip.Past 7 days (in)	Precip. July total	Total Apr GDD
North East Lab, PA	7/15/15	67	3.82	4.61	1161
Harborcreek, PA	7/15/15	67	3.33	3.92	1187
North East Escarpment	7/15/15	66	2.28	3.00	1152
Ripley	7/15/15	67	3.77	7.27	1179
Portland Route 5	7/15/15	67	5.79	7.03	1148
Portland CLEREL	7/15/15	67	NA	NA	1124
Portland Escarpment	7/15/15	69	7.73	8.87	1182
Dunkirk	7/15/15	67	3.52	4.69	1095
Silver Creek	7/15/15	67	3.5	4.79	1083
Sheridan	7/15/15	68	NA	NA	1203
Versailles	7/15/15	66	NA	NA	1108
Appleton	7/15/15	67		0.23	963
Somerset	7/15/15	68		0.17	1099

Note: All Weather data reported as of 7/8/2015. NA=Sensor Malfunction

DATE/YEAR	HIGH	LOW	DAILY PRECIP	GDDs	TOTAL APRIL GDDs	TOTAL JAN GDDs
Week of 6/25/2015	76.1	61.00	0.24	130	913	913
Week of 7/2/2015	71.4	56.90	0.25	99	1012	1012
Week of 7/9/2015	76.7	59.00	0.14	125	1137	1137
Week of 7/16/2015	78.1	59.70	1.00	132.5	1269.5	1269.5
Average(from 1964)	80.4	61.90	0.15	148.1	1182	1206
July Precip- Wk 1=.55 Wk 2= .95" Wk 3= 7.03"						
Total Precip: June = 7.07"						

A Message from the Westfield Town Assessor: *(applicable to other towns with flood damage)*

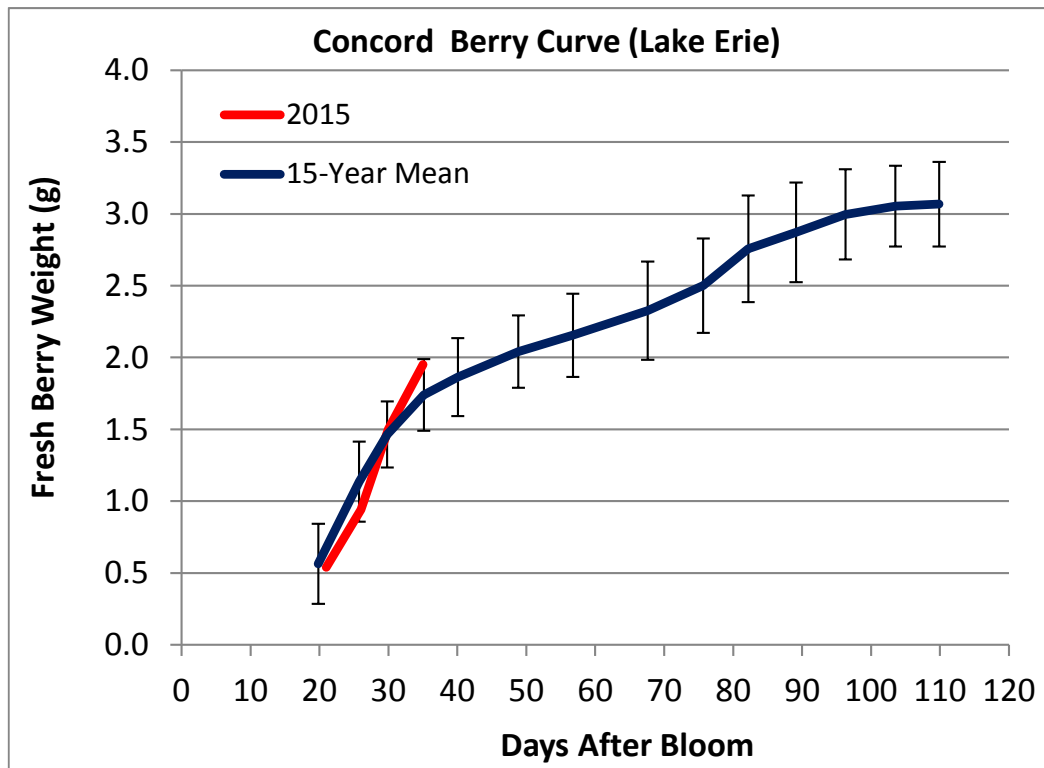
If you have been affected by the recent rain waters and flooding, please make sure you:

1. Document ALL expenses
2. Take pictures of damaged or flooded areas
3. REPORT PERSONAL AND PROPERTY DAMAGES ASAP TO CHAUTAUQUA COUNTY EMERGENCY SERVICES AT:

716-753-4341 Or 211

Municipalities are working together to come up with plans for flood damaged rubbish to be disposed of. Further information will be posted as it becomes available. Check local newspapers, local news channels, and phone messages from Chautauqua County Health Department for information.

Municipalities are working together to help in every way we can as fast as we can.



What seven inches of rain will do to the Concord fresh berry curve: Concord fresh berry weight has been tracking with the long term mean (or just below) so far this season. This trend seemed to match the moderate crop size and lower GDD during early berry development. Between 30-35 days after bloom, however, the fresh berry weight shot up to above average (1.95 g at 35 days after bloom) and I think this is partially an effect of the heavy rainfall this week. I will be interested to see if the rate of berry growth drops off this week as the vineyards drop back to a state of equilibrium.

Last week, I was confident in saying that we would be looking at average berry weight at harvest. Unless the curve tapers back to normal, I would now say that we will gain a little bit in harvest weight with average to slightly above average final berry weight. In the case of this test vineyard, it would be 3.0-3.2 gram berries.

In the Vineyard

Andy Muza
Extension Educator, Erie County, PA Extension

In the Vineyard (7-16-15) – Andy Muza

Insects

Grape Berry Moth – Hopefully, an insecticide application for GBM has been applied at High/Severe Risk sites or in areas where scouting indicated a need. According to the GBM Degree Day Model, “For materials that are contact insecticides, e.g. pyrethroids and carbamates, apply between 811 and 900 DD”. As of today, most of the NEWA sites in our region have surpassed or will reach 900 DD within the next day. The Silver Creek site has recorded the fewest GBM DD (based on estimated Wild Grape Bloom of June 3) and is projected to surpass 900 DD on July 19.

Check the GBM Degree Day Model in NEWA :

<http://newa.cornell.edu/index.php?page=berry-moth> choosing the closest station near your vineyard for more specific degree day accumulations.



GBM injury and webbing in Concord cluster

Japanese Beetle and **Grape Leafhopper** – low population levels of JB and GLH were observed. At current population levels, no insecticide applications are required. Check your blocks for population levels, but at this point, a lot more leaf injury will be required before an insecticide application should be considered.

Diseases

Black Rot - surprisingly, not much BR has been observed in blocks I have examined. However, Concord berries can still be infected up to 5 - 6 weeks after cap fall.

Vineyard blocks that have had BR problems in the past should be checked to see if BR infections are prevalent in these sites.

Powdery Mildew – Overall, PM levels are still low across the region. Leaf infections are starting to become more visible and will increase over the next few weeks. At a few sites, I observed pockets of clusters plastered with PM. It remains to be seen if PM will be a problem this season, so continue to scout to monitor buildup of this disease.



Powdery Mildew lesions on Concord leaf



Powdery Mildew on Concord cluster

Downy Mildew – DM is the most prevalent disease in vineyards checked. Some level of DM on clusters can probably be found in any vineyard, which is an indication of just how wet the season has been so far. By now, or within the next week, clusters should no longer be susceptible to infection. However, leaves are susceptible to infection throughout the season.

In my opinion, the majority of Concord blocks should not require any additional sprays for DM unless there is already a noticeable amount of DM on clusters or leaves and the weather pattern continues to remain the same (i.e., wet). However, blocks of Niagara, Catawba, and other DM susceptible varieties should be closely watched because additional sprays are likely in these varieties, depending on weather conditions. Downy mildew flare ups will be a possibility throughout the season considering the amount of inoculum that is present.



Niagara leaf with with Downy mildew lesions



Downy mildew on Concord cluster

From the North East Lab

Bryan Hed-Research Assistant
Lake Erie Regional Grape Research and Extension Center

Weather: We have recorded 4.61” rainfall during the first half of July. This is way more than the average for the entire month. And, more is on the way. Needless to say, this sustains a pattern of wetness that has been with us since the end of May. We have had nearly 16 inches of rainfall since the season began. In fact, according to our records for our site, 2015 is the wettest season in at least 20 years (May through July rainfall since 1995). On the other hand, we have accumulated just 262 growing degree days so far in July, way below average. Our growing degree day accumulation since April 1 is about 1162 at this point.

We are about 4-5 weeks past the end of bloom, and according to research conducted by Cornell, most Concord and Niagara fruit clusters should no longer be susceptible to new infections of powdery and downy mildew. However, disease pressure, especially for downy mildew, remains high with the abundant and frequent rainfall in the forecast and no end to future wetting periods in sight. The continuation of sprays for leaf protection is going to depend on crop load (from crop estimation; the larger the crop, the more cost effective and prudent it is to keep spraying), the abundance or lack of disease (from scouting; the more disease you currently have, the more likely it is to cause economic damage if you don't continue to control it) and the weather (always a wild card, but according to Accuweather for North East PA, rain is predicted for 4 of the next 5 days!). Therefore, varieties susceptible to downy mildew will require continued protection from this disease. We have access to several excellent downy mildew materials that are very rain-fast and relatively inexpensive. There's always copper and lime too, that's lethal to downy mildew and that will also provide useful levels of powdery mildew control on varieties like Concord and Niagara. Just be careful to avoid applying copper/lime to wet leaves and spraying under slow drying conditions (not an easy task this year).

The risk for new infections of black rot on fruit should be greatly diminished by now. Work by Cornell and Penn State indicates that new infections of black rot can occur on Concord and Niagara fruit until about 4-5 weeks after bloom, right about where we are now. Overwintering inoculum sources of this disease have long since 'given up the ghost' and if scouting reveals little or no black rot at this point (as new inoculum sources), it's unlikely that further sprays for protection against future infections of this disease, will change the outcome. However, new infections acquired late in this susceptibility period may take 3-4 weeks to become manifest and you may still see the results of 'late' infections through the end of July and into August.



LERGP Website Links of Interest:

Check out our new Facebook page!!

Cornell Lake Erie Research & Extension Laboratory Facebook page

<https://www.facebook.com/pages/Cornell-Lake-Erie-Research-Extension-Laboratory/146971918664867>

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

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>

Go to <http://lergp.cce.cornell.edu/> for a detailed calendar of events, registration, membership, and to view past and current Crop Updates and Newsletters.





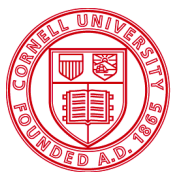
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