LERGP Crop Update July 9, 2015

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

Wednesday, July 15, 2015- Coffee Pot Meeting
10:00am- Szklenski Farms, 8601 Slade Rd. Harborcreek PA 16421

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

August 5- Gravel Pit Park Twilight Meeting and Chicken BBQ

The Shaulis Symposium and ISHS II International Workshop on Vineyard Mechanization and Grape and Wine Quality have been cancelled due to low registration numbers

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.

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

Business Management

Kevin Martin
Penn State University, LERGP,
Business Management Educator

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

Waterlogged Roots

To say the vineyards are wet is an understatement. The persistent rains over the past six weeks have saturated soils in most area vineyards, especially on the heavier ground.

Nutrient deficient Concord leaf. Picture taken 7/7/15.

As the saying goes, "grapes don't like wet feet". The reason why, is when the ground is saturated with water all the air is pushed out of the soil and the roots are unable to uptake or access nutrients and more importantly oxygen (O_2). Lack of oxygen or hypoxia will not allow roots to function properly and ultimately inhibits many plant processes. One of these processes is photosynthesis. Without photosynthesis the vine is unable to make the carbohydrates that feed the roots, new growth and the berries. Over time, the lack of this needed energy will cause a halt of overall growth and possibly kill the vine. It takes a lot of water to kill a vine, but I'm starting to see a decrease in vine health in low spots and heavy ground.

Waterlogged Concord roots that have started to die off. Vine canopy showed severe symptoms of water stress.

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

Although we can't stop the rain there are a few things we can do to decrease the amount of saturated soils. Installing tile lines are very effective at removing excess water and have proven to pay for themselves in a short amount of time. Reducing ground compaction through ripping or ground breaking cover crops like radishes help create soil pore space for water to infiltrate through. Leaving row centers to grow instead of applying herbicide can also help pull out some of the excess moisture.

Weather

Lake Erie Grape Region NEWA Weather Data

Location	Date	Avg. temp F (July 1-8)	Precip.Past 7 days (in)	Precip. July total	Total Apr GDD
North East Lab, PA	7/8/15	65	0.74	0.79	1036
Harborcreek, PA	7/8/15	67	0.54	0.59	1066
North East Escarpment	7/8/15	66	0.65	0.72	1035
Ripley	7/8/15	67	0.48	0.50	1072
Portland Route 5	7/8/15	67	0.88	1.24	1020
Portland CLEREL	7/8/15	66	NA	NA	1001
Portland Escarpment	7/8/15	68	1.01	1.14	1058
Dunkirk	7/8/15	66	1.05	1.17	975
Silver Creek	7/8/15	65	1.2	1.29	960
Sheridan	7/8/15	67	NA	NA	1074
Versailles	7/8/15	66	NA	NA	993
Appleton	7/8/15	67	0.21	0.23	838
Somerset	7/8/15	67	0.1	0.10	966
Lockport	7/8/15	65	NA	NA	857

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 6/18/2015	79.9	60.90	0.30	142.5	783	783
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
Average(from 1964)	79.9	61.40	0.08	144.3	1034	1058
July Precip- Wk 1=.55 Wk 2= .95"						
Total Precip: June = 7.07"						

IPM Tim Weigle
NYSIPM, LERGP Team Leader

Grape Berry Moth Model on NEWA

According to the Grape Berry Moth model on NEWA, we are currently at a point in the grape berry moth life cycle where action is required, or will be required soon, for high and intermediate risk vineyards as classified by the grape berry moth risk assessment protocol. Knowing the exact date of wild grape bloom near your vineyard blocks can make a big difference in the types of insecticides that you should be using.

The table below shows that the model can go from a few days away from 810 DD accumulation where an insecticide which needs to be ingested (Altacor or Intrepid – Intrepid is PA only) to well past 810 DD where we would be closing in on the time frame where contact insecticides (i.e. Leverage 360, Danitol, etc.) should be used. The best information for your site(s) will come when you access the GBM model on NEWA http://newa.cornell.edu and put in the wild grape bloom date you observed in the area. A quick look at the table shows that as little as 4 days can make a big difference in your decision making for grape berry moth management.

NEWA Location	Wild grape bloom date*	DD Total on July 8, 2015	Wild grape bloom date**	DD Total on July 8, 2015
Versailles	May 30	729	May 26	819
Dunkirk Airport	May 30	725	May 26	818
Sheridan	May 27	828	May 23	909
Silver Creek	June 3	669	May 30	714
Portland Escarp.	May 29	761	May 25	855
Portland	May 30	732	May 26	825
Portland Route 5	May 30	742	May 26	836
Ripley	May 28	797	May 24	895
North East Escarp	May 29	737	May 25	849
Harborcreek	May 28	786	May 24	884
North East Lab	May 29	754	May 25	850
Erie Airport	May 27	867	May 23	950
Somerset	May 30	696	May 26	789
North Appleton	June 6	559	June 3	598
* Estimated date provided by NEWA website				
** Data projected 4 days earlier than NEWA prediction from observations around the belt.				

If you have questions on how to implement the new phenology-based DD model for grape berry moth, please give me a call at 716.792.2800 x203 or email me at thw4@cornell.edu.

Grape Rootworm

We are continuing to find adult grape rootworm in the 10 vineyard blocks we are scouting as part of the research project being under taken in the area in collaboration with Dr. Greg Loeb, Department of Entomology, NYSAES, Geneva. We are seeing what we think is a prolonged emergence of grape rootworm this year. However, with any previous data to look at, this may be the norm. We are finding low levels of adults in most vineyard blocks, with populations looking like they are making a comeback in all the blocks that have received an insecticide application.

Our scouting is looking for the presence of adult grape rootworm in the canopy. Due to trunk damage from this past winters low temperatures, we are seeing more sucker growth this year than in past years and it does appear that the grape rootworm are taking advantage of this food source and staying low to the ground in some vineyards. Look for the characteristic chain-like feeding pattern on the foliage of suckers and the canopy to determine if grape rootworm are present.

In the Vineyard

Andy Muza
Extension Educator, Erie County, PA Extension

Grape Berry Moth – Early warning for growers – after checking vineyards this week, early indications are that, like last year, this season has the potential for high levels of cluster infestations at harvest.

Even though winter temperatures were extreme, snow insulated GBM pupae and probably prevented high mortality rates. So, for another season, it appears that this will be a **high pressure year** for this insect. This week, at 11 sites examined, I observed GBM feeding injury in border rows at all sites. Newly laid eggs were also observed on clusters at 2 severe risk sites.

TIME to SPRAY - Starting on 7/7 (Tuesday) through Wednesday (7/15) all of the NEWA sites in our region, will have reached or surpassed 810 DD (GBM Model). According to the model, "Control measures should be timed to coincide with 810 DD in high risk vineyards. For materials that must be ingested, e.g. Intrepid, Altacor, it is important to get materials on as close to 810 DD as possible. For low and intermediate risk vineyards, scout between 750-800 DD for damage and apply control measures, timed to coincide with 810 DD, if more than 6% damaged clusters are found. For materials that are contact insecticides, e.g. pyrethroids and carbamates, apply between 811 and 900 DD". 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 timings.

From the North East Lab

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

Weather: We recorded 6” of rainfall during the month of June, and 0.8” rainfall during the first 8 days of July. However, I can’t help including the 1.41” that just fell as I write this update this morning (July 9), to put our total past 2.2” for the first 9 days of July. On the other hand, our growing degree day accumulation since April 1 continues to drag and is about 1036 at this point.

Concord fruit are no longer susceptible to new infections of powdery mildew and sprays for leaves are going to depend on crop load and weather; that’s one of the reasons crop estimation will be important this year. Work by Wayne Wilcox has shown that Concord vineyards with an average to below average size crop will generally not require additional sprays for mildew beyond that needed to keep fruit clean (unless ripening conditions are poor), whereas more heavily cropped vines will benefit from continued management of powdery mildew on leaves to ensure proper ripening.

Late last week we were still seeing new symptoms of downy mildew on Concord fruit, indicating that susceptibility was still there by about 2 and a half to 3 weeks after start of bloom. However, over the past week Concord and Niagara fruit should have developed resistance to downy mildew, but cluster stems, especially those of Niagara are likely still susceptible and cluster stem infections can still lead to crop loss.

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

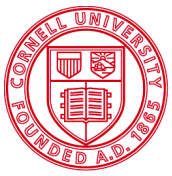
Appellation Cornell Newsletter Index:
http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/

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.

Lake Erie Regional Grape Program Team Members:
Andy Muza, (ajm4@psu.edu)Extension Educator, Erie County, PA Extension, 814.825.0900
Tim Weigle,(thw4@cornell.edu) Grape IPM Extension Associate, NYSIPM, 716.792.2800 ext. 203
Kevin Martin, (kmm52@psu.edu) Business Management Educator, 716. 792.2800 ext. 205
Luke Haggerty, (llh85@cornell.edu) Grape Cultural Practices, 716.792.2800 ext. 204

THE LAKE ERIE REGIONAL GRAPE PROGRAM at CLEREL
6592 West Main Road
Portland, NY 14769
716-792-2800



Cornell University
Cooperative Extension

PENNSTATE
1855
College of
Agricultural
Sciences