

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

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.





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### **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 no action is required as the most effective time for treatment of the second generation is over. Scouting to determine the need for treatment of the third generation should take place when the model shows DD accumulation between 1470 and 1620. With the DD accumulations we are currently experiencing we could reach 1620 in most areas within the next 6 days. Threshold for damaged clusters at this scouting is 15%. As shown in the Table below, knowing the exact date of wild grape bloom (the biofix to start the GBM model) near your vineyard blocks can make a big difference in the types of insecticides that you should be using.

The best information for your site(s) will come when you access the GBM model on NEWA <u>http://newa.cornell.edu</u> and put in the wild grape bloom date you observed in the area.

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	Wild grape	DD Total on	Wild grape	DD Total on
NEWA Location	bloom date*	July 29, 2015	bloom date**	July 29, 2015
Versailles	May 30	1201	May 26	1291
Dunkirk Airport	May 31	1187	May 26	1307
Sheridan	May 27	1333	May 23	1414
Silver Creek	June 3	1155	May 30	1200
Portland Escarp.	May 29	1254	May 25	1348
Portland	May 30	1220	May 26	1313
Portland Route 5	May 30	1237	May 26	1331
Ripley	May 28	1298	May 24	1397
North East Escarp	May 29	1215	May 25	1309
Harborcreek	May 28	1285	May 24	1383
North East Lab	May 29	1247	May 25	1343
Erie Airport	May 27	1391	May 23	1474
Somerset	May 30	1195	May 26	1289
North Appleton	June 6	1033	June 3	1072
* 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.

#### **Japanese Beetle**

Japanese beetle has made its presence known at population levels higher that we have seen in the past few years. With the exception of vineyards with limited foliage, i.e. new vineyards, winter damaged vineyards or vineyard directly adjacent to grassy areas (higher pressure as this is where the Japanese beetle are coming from) there is no need for a spray specifically targeting them. Most Concord vineyards have ample foliage for the size of the crop. However, the only way to really know if you are pushing your vines and Japanese beetle foliar feeding could be a problem is to conduct crop estimation in your blocks.

### Grape Rootworm

Scouting for grape rootworm in area vineyards indicates that we are past the point of significant feeding by grape rootworm adults. Seven of the eight vineyard blocks scouted yesterday recorded no grape rootworm adults for the second week in a row. We found 3 grape rootworm adults in the remaining block that is acting as a control treatment that received no insecticide treatment this year.

## **Business Management**

Kevin Martin Penn State University, LERGP, Business Management Educator



## **Cultural Practices**

Luke Haggerty Viticulture Extension Associate Lake Erie Regional Grape Program

### Cover Crops

As a perennial crop, grape production implicates many practices that deplete soil health, and overtime decrease or limit vine productivity. A majority of the vineyards in the Lake Erie grape region have been in production for over 50 years, with an intense regiment of management practices leading to a range of soil health problems. To combat these problems some growers are turning to cover crops as a floor management practice.

Currently USDA NRCS funds grants to grape growers



to incorporate cover crops into their vineyards. Depending on the grant awarded to the grower they have many options of cover crop mixtures and getting away from single species planting, most commonly a type of rye grass. As more growers are awarded these types of grant many of them turn to LERGP seeking a seed mix that will contribute to soil health, reduce compaction and choke out certain weeds. However, current recommendations are based on studies from open field plots and not vineyard-based plot trials. With the need for research-based recommendations for Concord grape growers I have written and been awarded a grant from the New York Farm Viability Institute titled "Using Cover Crops to Improve Soil Health and Vine Productivity in Intensively Managed 'Concord' Vineyards".

This project will involve working with area growers who are currently using cover crops to benefit their grape production in multiple ways. Cover crops studies have presented a long list of soil health benefits and proved to be effective in reducing noxious weeds. The focus of this project is to collect physical, chemical, and biological measurements, soil compaction, vine size, and noxious weed data and identify cover crop mixes that have a benefit to Concord production.



Along with this project I will also be conducting a 'timing and seed rate' trial to best identify when and how much seed to plant. In total I plan on planting at four different times and at three different rates. The first planting was seeded July 21, with three more plantings scheduled through the first part of September. If you are interested in cover crops as a floor management practice visit the Portland Lab or give me a call at (716) 792-2800 Ext. 204 or email me at <u>llh85@cornell.edu</u>

# In the Vineyard Andy Muza Extension Educator, Erie County, PA Extension

### **Diseases**

**Downy Mildew** – despite the hot, dryer weather over the past week, small amounts of active sporulation can still be found in vineyards, especially rows bordering wooded areas. Rows near wood lines remain shaded and wetter for longer periods and these areas are where the most DM has been observed. Concentrate your scouting efforts for DM in these areas

In some blocks DM cluster infections are easy to find but spraying now will do nothing to reduce cluster infection levels. At this point in the season berries are past the susceptible stage. However, new leaf infections are possible throughout the season, and flare ups of DM can occur if/when environmental conditions change (e.g., increase in thunderstorm activity). I don't expect problems in most Concord vineyards but susceptible varieties like Niagara, Catawba, Fredonia, Delaware, etc. should be watched closely if rain events increase.

Black Rot – symptoms of BR on berries was more evident this week but infections occurred a few weeks ago. Berries are past the susceptible stage so spraying now will not help.

**Powdery Mildew** – PM leaf infections continue to slowly increase but still remain at low levels in the majority of Concord and Niagara blocks checked.

### **Insects**

**Grape Berry Moth** – scouting for the third generation should begin (1470 degree days) as early as next Tuesday (Aug. 4) for the Sheridan area. Other sites are 4 or more days behind the Sheridan area so check the weather station closest to your blocks for information (GBM Degree Day Model in NEWA http://newa.cornell.edu/ index.php?page=berry-moth )

Japanese Beetle and Grape Leafhopper – leaf injury remained at low levels in blocks checked and I don't expect problems in the majority of vineyards. However, each block is different, so scouting your sites should be conducted to avoid potential problems.



Downy mildew sporulation on underside of Niagara leaf



Downy mildew lesion on Niagara leaf





Downy mildew infected Concord cluster with sporulation and red discoloration of berries

Downy mildew infected brown pedicels and discolored Niagara berry

## From the North East Lab

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

This morning's rainfall has bumped our July total up to 4.93" and we currently have racked up 1467 growing degree days since April 1. We have made some serious gains in gdds over the past two weeks, but will still finish out July a little below average in heat gain, and a bit above average in rainfall. Counting from May 1 however, we look to be coming out of July right about at average in heat gain; not too shabby.

According to DMcast, this morning's rainfall did not generate a downy mildew infection period at our location and there have been no infection periods to report over the past 2 weeks. However, the high relative humidity and heavy overnight dews keep the pathogen alive at a slow burn in vineyards, ready to ramp up disease development should (when) wet weather resumes. We know this from the fresh sporulation that can still be found on infected leaves. Stay vigilant and keep scouting your vineyards. Over the past week, I have had many visits from growers bringing in samples of downy mildew infected clusters from their juice grape vineyards. The most common symptoms come in the form of full sized, but discolored berries, that often have a premature red blush (Concord, Fredonia; this is not veraison), or a brownish/yellow darkening (Niagara) of the berry, and no sporulation. Usually, the pedicels of these berries will be darkened (infected), and occasionally support sporulation. These berries will fail to ripen and some will shell. According to inoculations to Concord berries that we initiated just at the end of the fruit susceptibility period (about 2-3 weeks past bloom), the more atypical symptoms of downy mildew fruit infection (described above) may take longer to fully manifest themselves than fruit infections that occurred closer to bloom. Nevertheless, there is nothing you can do at this point to erase the damage to fruit, and clusters should no longer be susceptible to new infections. The cluster damage described above is the result of infections that occurred at least 2-3 weeks ago, during the first half of July (that would have been controlled by the second post bloom spray in vineyards with active lesions). Our focus at this time is the protection of leaves from downy and powdery mildew in vineyards hanging large crops this year. Many (most?) Concord and Niagara vineyards are repairing damaged conductive tissues this season and may not be as fit for the demands and stress of a huge crop as in most years.

Powdery mildew will continue to build throughout the season, as secondary inoculum can infect grape leaves without rainfall. So, virtually every day is an infection period for powdery mildew. Again, the continuation of sprays for leaf protection is going to depend on crop load (from crop estimation; the larger the crop, the more affordable it is to keep spraying, the more you have to lose, and the more you need a healthy canopy to ripen that above average crop), 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 (will ripening conditions be good or bad? always a wild card).

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



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