



LERGP Crop Update August 5, 2015



August 26, 2015- Hops Harvester Meeting-

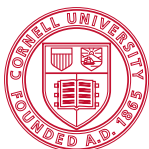
Choose from either time frame: 3:00pm to 5:00pm followed by picnic dinner or 6:00pm to 8:00pm preceded by picnic dinner.

Please see flyer that is included in this Crop Update for more information.



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.



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Grape Berry Moth Model on NEWA

According to the Grape Berry Moth model on NEWA, we are currently at the point where scouting should be accomplished, in most locations, to determine the need for treatment of the third generation. Threshold for damaged clusters at this scouting is 15%. In a few locations we have already reached the 1620 DD which signals the timing for applications of insecticides which need to be ingested to work) (Intrepid (PA only) and Altacor). 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.

NEWA Location	Wild grape bloom date*	DD Total on August 6, 2015	Wild grape bloom date**	DD Total on August 6, 2015
Versailles	May 30	1380	May 26	1470
Dunkirk Airport	May 31	1376	May 26	1496
Sheridan	May 27	1523	May 23	1604
Silver Creek	June 3	1347	May 30	1392
Portland Escarp.	May 29	1434	May 25	1528
Portland	May 30	1402	May 26	1495
Portland Route 5	May 30	1431	May 26	1525
Ripley	May 28	1488	May 24	1586
North East Escarp	May 29	1391	May 25	1485
Harborcreek	May 28	1477	May 24	1574
North East Lab	May 29	1437	May 25	1532
Erie Airport	May 27	1595	May 23	1678
Somerset	May 30	1381	May 26	1474
North Appleton	June 6	1214	June 3	1253
* Estimated date provided by NEWA website				
** Data projected 4 days earlier than NEWA prediction from observations around the belt.				

The table below provides an estimate of when locations will hit 1620 using the National Weather Service forecast built into the grape berry moth model on NEWA. This information was developed using an average of 23 DD per day. Again, for the most accurate information for your location, visit NEWA and use the GBM model on the station page(s) nearest your locations.

NEWA Location	Wild grape bloom date*	1620 DD	Wild grape bloom date**	1620 DD
Versailles	May 30	August 16	May 26	August 12
Dunkirk Airport	May 31	August 16	May 26	August 11
Sheridan	May 27	August 10	May 23	August 7
Silver Creek	June 3	August 18	May 30	August 16
Portland Escarp.	May 29	August 14	May 25	August 10
Portland	May 30	August 15	May 26	August 11
Portland Route 5	May 30	August 14	May 26	August 10
Ripley	May 28	August 12	May 24	August 7
North East Escarp	May 29	August 16	May 25	August 12
Harborcreek	May 28	August 12	May 24	August 8
North East Lab	May 29	August 14	May 25	August 10
Erie Airport	May 27	August 7	May 23	August 6
Somerset	May 30	August 16	May 26	August 12
North Appleton	June 6	August 23	June 3	August 21
* 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.

Economics of Berry Moth Insecticide Applications

As Tim's article suggests, timing for 3rd generation berry moth begins shortly. Others may have another week before growing degree-days trigger an application. Timing may be somewhat sooner for growers seeing 100% cluster damage and trying bracketed sprays (two applications for one generation).

The economics behind typical grape berry moth are rather straightforward. Even if pressure does not create a load rejection, inexpensive and moderately expensive materials applied once per generation save enough crop to justify their use. The second generation sometimes requires a special trip through, not timing itself with a fungicide application. The third generation almost always requires a special trip.

Material costs, on the low-end start at \$18 per acre, for two applications. Costs can be even lower, but not without running into resistance problems. While it is easy to save that much crop, the effectiveness of those inexpensive materials leave much to be desired. In other words, as much crop as those materials save, a larger investment could easily yield better protection and pay for itself many times over.

On the very high end a grower could spend nearly \$75 per acre. Such a pricy investment does require a reduction in crop loss. However, even with these expensive materials, the reduction in crop loss is relatively small. \$75 per acre translates to less than 1 ton per acre, likely less than .5 tons per acre. Without scouting and a good understanding of site-specific berry moth pressure, it is impossible to know if these high-end sprays do not make economic sense.

Two applications of berry moth also result in additional trips through the vineyard. This cost can range between .2 and .4 tons per acre. Additional good news is the variability of berry moth populations. Often if growers continue to rotate good materials through high-risk areas the second application is often limited to high-risk areas within vineyard blocks. Worst-case scenario, it is often only necessary in high-risk blocks.

We have seen GBM pressure increase to levels in a few sites where even those levels of control still result in substantial fruit loss. In those areas multiple sprays per generation are increasing costs to \$120 - \$160 per acre. These vineyards are yielding above 6 ton per acre where GBM is controlled. In hot spots yields decrease by 25% - 100%. Further, if GBM can be controlled there are some indications that investment may be able to decline below \$100 per acre over the long-term.

Current research projects are experimenting with innovative control measures that offer new ways to use pheromones to further reduce damage while decreasing the number of required spray applications. At this time those commercially available techniques have not proven their economic sustainability through improvements in the bottom line. Lowering the cost of technology and/or increasing the cost of grapes may result in the adoption of pheromone use in the future.

Cultural Practices

Luke Haggerty
Viticulture Extension Associate
Lake Erie Regional Grape Program

Berry size

From the sites that I have visited recently the berry size has varied from small to large. Here at CLEREL berry samples are taken every five to ten days. The most recent sample is very comparable to what we were seeing last year, large berries. However, our phenology block is on gravelly ground and the vines have fared well through the wet June and July. Vines located on heavy soils or in wet spots are lagging behind and are much smaller. The warm dry conditions have helped many sites get back on track by drying out the ground and greening-up the leaves.



I have heard reports of color in 'Fredonia' grapes (the variety) which has stated talk of veraison in 'Concord'. Looking at the historical phenology data veraison occurs ~70 days after bloom. Bloom occurred on June 10th, making the veraison prediction August 19th. We have had many Concord berries with color brought into the lab this past week. However, the color in the berries was the result of berry moth and downy mildew, not the first signs of veraison.

Weather

DATE/YEAR	HIGH	LOW	DAILY PRECIP	GDDs	TOTAL APRIL GDDs	TOTAL JAN GDDs
Week of 7/15/2015	78.1	59.70	1.00	123.5	1269.5	1269.5
Week of 7/22/2015	79	63.60	0.05	149	1418.5	1418.5
Week of 7/29/2015	82	62.00	0.00	154	1572.5	1572.5
Week of 8/5/2015	80.85	63.40	0.04	155	1727.7	1727.5
Average(from 1964)	78.8	61.00	0.10	148.4	1637	1661
August Precip-Week 1=.29"						
Total Precip: July = 8.85"						

2015 Hops Harvest and Processing Workshop



August 26, 2015

3 - 5 PM or 6 - 8 PM

Choose the session that best fits your schedule
Cornell Lake Erie Research and Extension Center
Meeting Room and Hop Yards
6592 West Main Road, Portland, NY 14769



Registration: \$15

Includes picnic dinner of hamburgers, sausage and sides

Agenda:

How to time your hops harvest?

Why do my hops look like that?

Hop testing for alpha and beta acids and storage

Harvester Demo's - See Hopsharvester, Steenland HH 1000, Wolverine

Harvester and CLEREL's prototype harvester in action

Experience hand picking of hops first hand

Demo of University of Vermont's Oast

To Register:

Contact Kate at (716) 792-2800 x202 or kjr45@cornell.edu

For credit cards please visit our website at:

<http://lergp.cce.cornell.edu>





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.





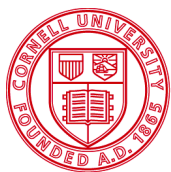
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Cornell University Cooperative Extension provides equal program and employment opportunities. Contact the Lake Erie Regional Grape Program if you have any special needs such as visual, hearing or mobility impairments. CCE does not endorse or recommend any specific product or service.

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