

LERGP Crop Update

May 19, 2016

Important dates:

May 25, 2016- Coffee Pot Meeting,

10:00am- Dan SPrgaue Farm, 12435 Versailles Plank Rd. Irving NY 14081

3:00pm- Peter Loretto, 10854 Versailles Plank Rd. North Collins NY 14111

every Wednesday following: Coffee Pot meetings- see enclosed schedule

June 11, 2016- Hops Conference at CLEREL (see enclosed flyer for additional information)

August 2, 2016- Wine Quality Workshop (rescheduled from April 13, 2016) at CLEREL

September 1, 2016- Cover Crop Conference at CLEREL

****Crop Updates will be circulated on a weekly basis beginning with this edition.****



The Lake Erie Regional Grape Program



Building Strong and Vibrant New York Communities

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2016 Hops Production in the Lake Erie Region Conference

June 11, 2016

9 AM - 4 PM

Cornell Lake Erie Research and Extension Laboratory
Meeting Room and Hop Yards
6592 West Main Road, Portland, NY 14769

Featured Speakers

Brad Bergefurd - Ohio State University

Margaret Kelly - NYS Ag & Markets

Jimmy Walsh - Brewer, Five & 20 Spirits & Brewery

Mario Mazza - Owner, Five & 20 Spirits & Brewery

Stephan Schmidt - Schmidt Farms

Justin & Chris Whipple - Whipple Brothers Farms

Samuel Filler - Empire State Development

Kevin Martin - LERGP Penn State

Tim Weigle - NYS IPM Program & LERGP

Becoming profitable with Hops Production

This workshop is designed to provide background and start up information related to hops production, as well as, offer information on the techniques that will help you to become profitable with hops production.

Topics will include choosing the right plants, site selection, trellis layout, and nutrition. Also covered will be how to work with a brewery to give them the hops they are looking for, and in what form.

There will be in-field opportunities to interact with speakers in the CLEREL hopyards.

Registration: \$75 per person

To Register:

Contact Kate at (716) 792-2800 x201 or kjr45@cornell.edu

For credit cards please visit our website at:

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



Class size is limited to 80 each day, sign up early to reserve your spot



2016 Hops Production in the Lake Erie Region Conference

June 11, 2016

9 AM - 4 PM

Cornell Lake Erie Research and Extension Center
6592 West Main Road, Portland, NY 14769

Registration Form

Farm/Business Name _____

Name of Attendee (s) _____

Street _____

City _____ State _____ Zip _____

Email _____ Phone _____

Saturday registration - \$75 X number attending _____ = _____

Total \$ _____

Please make check payable to: Lake Erie Regional Grape Program

To register with a *credit card*, please visit our website <http://lergp.cce.cornell.edu>

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

2016 LERGP Coffee Pot Schedule

May 4- 10:00am Betts 7365 East Route 20, Westfield NY 14787
May 11-10:00am Ann & Martin Schulze-2030 Old Commer Rd. Burt NY 14028
May 18-10:00am John Mason 8603 W Lake Rd. Lake City PA 16423
May 25-10:00am Dan Sprague- 12435 Versailles Plank Rd. Irving NY 14081
3:00pm Peter Loretto-10854 Versailles Plank Rd. North Collins NY 14111
June 1-10:00am Phillip Baideme- 7935 Route 5, Westfield NY 14787
3:00pm Tom Meehl Cloverhill Farm 10401 Sidehill Rd North East PA 16428
June 8-10:00am Earl & Eileen Blakely 183 Versailles Rd. Irving NY 14081
3:00pm- Paul Bencal 2645 Albright Rd Ransomville NY 14131
June 15- 10:00am Leo Hans-10929 West Perrysburg Rd. Perrysburg NY 14129
3:00pm -Evan Schiedel/Roy Orton- 10646 West Main Rd. Ripley NY 14775
June 22-10:00am Archer Pratz 9210 Lake Rd North East PA 16428
3:00pm-Alicia Munch-761 Bradley Rd. Hanover NY 14136
June 29-10:00am Kirk Hutchinson-4720 West Main Rd. Fredonia NY 14063
3:00pm Fred Luke 1755 Cemetery Rd. North East PA 16428
July 6- 10:00am David C. Nichols Farm 1906 Ridge Rd. Lewiston NY 14092
July 13-10:00am Beckman Bros. 2386 Avis Dr. Harborcreek PA 16421
July 20-10:00am Brant Town Hall- 1294 Brant North Collins Rd. Brant NY 14027
July 27-10:00am Tom Tower 759 Lockport Rd. Youngstown NY 14174

Integrating Herbicide and Cover Crop Management for Cost Effective Results

We are starting to see increases in herbicide management costs. Some of you know all too well that 1-2 applications of herbicide do not provide adequate control of weed competition in vineyards. Complicated tank mixes that cost over \$100 per applied acre are not a practice I would consider sustainable. Some growers, though, would disagree.

Herbicide costs are not increasing substantially. More frequent applications and a need to apply better materials more often is driving costs up. The majority of herbicides used by growers are off patent these days and available almost exclusively in generic form. A third or even fourth vineyard pass, could be sustainable. The cost of materials and materials selected needs to be looked at comprehensively with the number of passes required to obtain adequate control.

More and more consistently I see potential for cover crops to improve the effectiveness of weed control. We can observe this not just in row middle management, but to a lesser extent, under trellis management. Cover crops do not offer the potential to reduce herbicide applications in situations where growers are applying between 1 and 3 per year. Rather, they offer an option to improve results without adding an additional pass. Particularly where hard to control species get established, some growers have added a late summer or fall application to bring their total number of herbicide application to 4-5. In this scenario, the right cover crop mix offers the potential of superior control with one less pass.

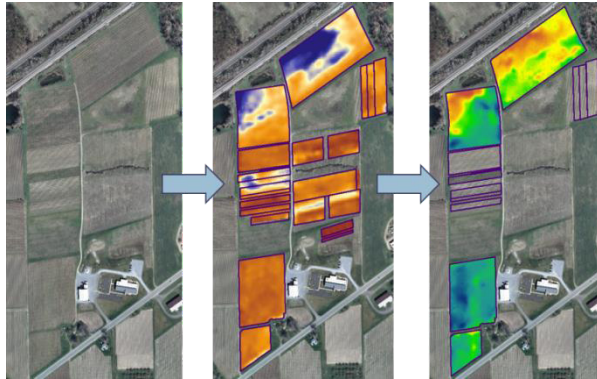
Cover crop mixes being trialed are similar in cost to an herbicide application. Low-end rye grass and radish blends are comparable to many post emergent row middle applications. Higher end seed mixes with oats, more radishes or even buckwheat range between \$12 and \$15 per seeded acre in materials. Legumes increase costs but, potentially, reduce fertilizer use. Easy to kill hybrid crimson clover complicates the economic analysis. It may reduce urea applications by 50%, reduce termination costs but could be more difficult to grow. Understanding effective seed mixes, their primary benefits and potential secondary benefits will be key to the success of moving cover crops into perennially systems in a cost-effective (saving) way.

LERGP, led by Luke Haggerty, is taking an integrated look at cover crops. As he observes benefits, I'll help quantify them. Very little formal research has been done using cover crops in perennial systems. There is a lot we still do not know. While preliminary results show promise for increasing economic sustainability where herbicide program prices are spiraling upward, a few years worth of data will allow us to clearly observe measurable benefits in herbicide programs. Right now, it just seems like there are less weeds and more cover crop in row middles that have been seeded. There will be more information to come soon.

NDVI Opportunity

Dr. Terry Bates, Senior research associate and director of the Cornell Lake Erie Research and Extension Laboratory (CLEREL) has spent 10 years adapting off-the-shelf-technology normally used in row crops, like corn and soybeans, to collect data and measure vine size in vineyards. This technology utilizes

Normalized Difference Vegetation Index (NDVI) to measure the amount of grape leaf surface that makes up the vine canopy. Large vigorous vines have a high NDVI value, whereas weak vines with less leaf area give a small value. To collect this information for an entire vineyard, NDVI sensors and a GPS unit are attached to a tractor or ATV that is driven up and down the grape rows collecting data and a location every second. The final product is a map, created using thousands of data points, that shows high, medium, and low growing areas within a vineyard.



Now that the 2016 growing season has started, LERGP is gearing up to start using NDVI sensors in area vineyards. We are continuing to develop cutting-edge methods to assist growers. The creation of NDVI maps have proven to be very helpful to the growers who have and use them. These maps allow growers to easily identify problem areas in their vineyards and incorporate targeted strategies for improvement. The sensor program has been a source of information used for vineyard auditing, identifying management classification, accurate sampling and crop estimation. Efforts are now focused on creating methods for growers to become more involved.

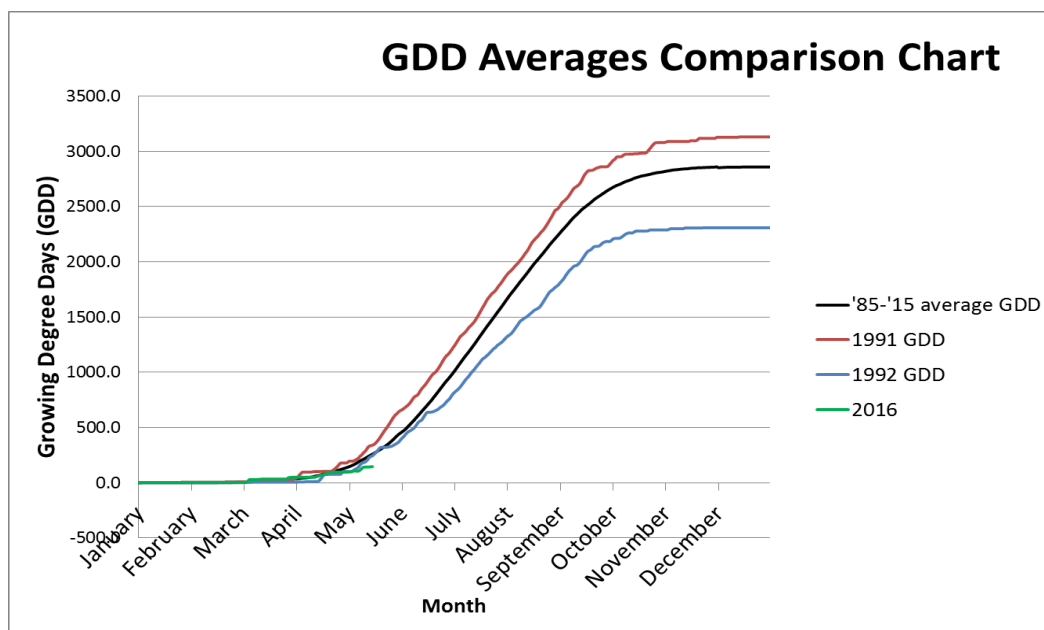
In past years the NDVI sensing and mapping program has been free for area grape growers. This is still true, but there are a few changes this year. With growing interest and popularity, we are shifting to a more hands on approach. Before we would collect this information, but now, with industry support, we are making the equipment available for growers via loaner systems. Instead of LERGP making a separate pass through your vineyard, interested growers will attach the loaner system to their tractors and collect the data while they spray. By doing this we will be able to cover more vineyards and give growers the opportunity to become more familiar with this type of technology.

If you are interested, please call Luke or Kevin and we can talk about specifics. Our technician, Scott, will set up a time to install the equipment and show the operator how to use it. Growers collect data while making passes through their vineyard. When finished, our GIS specialist will make NDVI maps using that data. Using the maps, LERGP staff will assist growers in applying management strategies for improving low producing areas. This will allow grape growers to diagnose the causes of variation and create management plans. For more information email Luke (lh85@cornell.edu) or Kevin (kmm52@psu.edu) or call (716) 792-2800.

Weather

The cool weather has slowed shoot growth and put the season a little behind schedule. On the sunny side of things, the forecast is calling for warmer days ahead. Depending on how long this warm pattern holds, we may have a shot at catching up.

Lake Erie Grape Region NEWA Weather Data				
Location	Date	Precip.Past 7 days (in)	Precip. May total	Total March GDD
North East Lab, PA	5/19/16	0.55	2.09	123
Harborcreek, PA	5/19/16	0.61	1.60	139
North East Escarpment	5/19/16	0.66	1.49	129
Ripley	5/19/16	0.51	1.50	135
Portland Route 5	5/19/16	NA	NA	NA
Portland CLEREL	5/19/16	0.42	1.37	130
Portland Escarpment	5/19/16	0.45	1.35	158
Dunkirk	5/19/16	0.22	1.12	106
Silver Creek	5/19/16	0.48	1.77	104
Sheridan	5/19/16	0.33	1.61	129
Versailles	5/19/16	0.39	1.41	141
Appleton North	5/19/16	0.18	0.71	52
Somerset	5/19/16	0.29	0.91	89
Ransomville	5/19/16	0.42	0.92	110
Note: All Weather data reported as of 5/19/2016 NA=Sensor Malfunction				



Understand *Your* Vineyard Operation – A Key to a Successful IPM Strategy

We had a number of interesting discussions at the Coffee Pot meeting yesterday and the common theme was; you need to know “your” vineyard. A good example was our discussion on managing grape berry moth. While it is pretty early to be thinking of grape berry moth, the following information can also be used when developing a disease or weed management program. At yesterday’s meeting the comment was made that a grower knew someone who had sprayed six times for grape berry moth and still had problems. We came up with some of the following potential reasons why this could happen:

It all starts with the site. If the site has a history of severe grape berry moth damage year after year, there should be a plan in place that looks at implementing the best tools available at the correct times. What does that mean?

Choice of insecticides. In this case, you should choose the most effective insecticide and consider if its longevity fits your spray timing (once a generation or twice using bracket spraying). Spraying an inexpensive insecticide six times will not provide control if it loses its efficacy quickly and leaves fruit unprotected between applications.

Timing of insecticides. Applying even a top of the line insecticide at the incorrect time will lead to poor control. Use the weather and pest model information found on NEWA <http://newa.cornell.edu> to assist in the correct timing of insecticides (and fungicides for PM, DM, BR and Phomopsis)

How are they applied? Knowing your sprayer and its ability to provide the type of coverage needed throughout the season is key. If you are not getting good coverage, the effectiveness of the insecticide application is diminished from the start.

Knowing and doing are two completely different things. Andy Muza and I had a conversation about how growers have commented that they are tired of hearing us talk about grape berry moth, early season disease management, etc., but many are still have difficulty with both insect and disease management. In talking to growers, a majority who are involved in the program know the recommended practices. However, it is still interesting to see the number who look at cost of materials above all else and/or treat all of their acres the same.

The bottom line of our conversations yesterday is this, with all of the changes that have taken place in the industry just since I started in 1989 it is impossible to make broad stroke recommendations for the entire industry. Each operation is different and all the components that make up that operation must be considered. Take a close look at your operation and develop a plan specific for each vineyard block. If you would like assistance, please contact me at thw4@cornell.edu (our phone system is still not working correctly) or Andy Muza ajm4@psu.edu and we would be happy to help.

North East PA Update

Byran Hed
Research Technologist
Lake Erie Grape Research
and Extension Center

Weather: We have recorded 0.56" rainfall over the past week and our May total is currently 2.09". Growing degree days continue to accumulate very slowly, and we currently have a whopping 51 gdds in May (our 15 year average total gdd for May is 263).

Phenology: Grapevine development in our Concord here by the lake looks to be at 1-2" shoots (compared to 5-10" shoots at this time last year), about 0.5-1" for Chancellor grape, and we are just past 50% bud burst in our Vignoles. Temperatures and development will continue to increase at a snail's pace until about mid-week next week when there is a warming trend predicted that will carry through to the end of the month.

Diseases: NEWA has only recorded a single, combined Phomopsis infection period since bud-break, that ended on the 15th of the month (last Monday). I think that in most (all?) vineyards along the lake, shoot growth was very minimal and inflorescences were not yet exposed to attack by this fungus. Vineyards farther inland were sporting more growth and may have been at greater risk. **At about 3-5" of shoot growth, the first fungicide spray of the season is applied** to protect the newly exposed inflorescences from Phomopsis. This spray also helps to prevent Phomopsis lesions on those first few internodes of new shoots (the ones most at risk at the time that they are expanding during early May). Lesions on these internodes cannot be pruned out later during dormancy so this spray can minimize overwintering lesion formation for next year's infections. Usually, by end of May, those internodes are fully expanded and are not susceptible to lesion development anymore. Lengthy wetting periods are what we need to watch out for when considering the early impacts of Phomopsis, but fortunately there are no such wetting periods in the immediate forecast. The Phomopsis infection model and weather forecasting information in NEWA should provide you with at least two days of lead time to get this spray on in those areas most at risk.

Mancozeb products or ziram are the best choice at this time; both are effective. Cost is probably the determining factor; mancozeb products are generally less expensive than ziram. You don't need to apply the full rates at this time either, making this spray rather inexpensive overall. Captan is also very effective on Phomopsis, but check with your processor for any restrictions on its use. Captan also carries a 48-96 hour reentry interval depending on formulation, compared to ziram (48 hours) and mancozeb (just 24 hours). **The relative need for this early spray can be determined** by considering block history, the amount of overwintering inoculum present on wood (from scouting), and of course, the weather forecast which for the moment is on the dry side. An examination of the bark on year old wood will provide some indication as to how much inoculum has overwintered from spring infections last year. It will not account for inoculum on older or dead wood, which can harbor Phomopsis and generate spores during spring rain *for years*. For this reason, machine pruned vineyards are generally more at risk.

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LERGP Website Links of Interest:



Check out our new Facebook page!!

Cornell Lake Erie Research & Extension Laboratory Facebook page
<https://www.facebook.com/Cornell-Lake-Erie-Research-and-Extension-Laboratory-678754995584587/?fref=ts>

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-cc->



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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When: Tuesday, March 22, 2016
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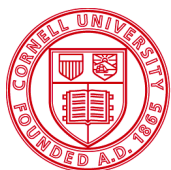
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