



# The Lake Erie Regional Grape Program



*Crop Update May 4, 2017*



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#### Other dates of interest

*Train the Trainer for WPS new regulations- Tim Weigle will be offering this class in the near future. The date will be announced soon.*



*Wednesday, May 10- Coffee Pot- CLEREL, 6592 W. Main Rd. Portland NY 14769  
There will be a demonstration of the variable rate equipment.*

*\*\*see the full schedule located in this Crop Update.*

*Monday, July 10- Grape Market Order Public Hearing, CLEREL, 6:00pm-8:00pm*

*Tuesday, July 11- Grape Market Order Public Hearing, CLEREL, 10:00am-12:00pm*



*Friday, August 11, 2017- LERGP Summer Grower Conference- come join us in celebrating 25 years of service!*



*Saturday, August 12, 2017- LERGP Open House- We would like to invite our neighbors to see what it is that we do here at CLEREL.*



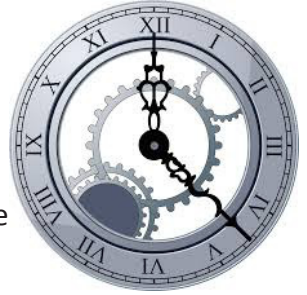
*Saturday, August 19, 2017- LERGP Hops Conference*

# Business Management

Kevin Martin, Penn State University, LERGP, Business Management Educator

## Decision Time

Our laid back winter season, fraught with mechanical projects, financial planning and trellis repair, shifts into high gear this time of year. Hopefully all that planning pays off as the first sixty days of the growing season require fast paced decision-making, resource allocation all while working around the weather and within the confines of the market. What the heck does that mean? You'll be making a lot of decisions, based on a lot of factors in an effort to operate efficiently.



First up is fungicide. Many growers find a 3" – 5" EBDC application as a necessary and regular part of their spray program arsenal. With a low rate, a total materials cost of less than \$10 per acre, it's hard to go wrong. Other growers rotate based on disease pressure and other factors. Obviously there is no shortage of rain. If you have a detailed 2016 scouting knowledge of your disease pressure this is a spray you may be able to skip. Given the weather report, there is certainly risk involved in skipping this spray. In addition to your scouting report, consider your tolerance for risk and pruning style when you make this decision. If it were me, this is a worthwhile investment if phomopsis was not hard to observe. It would also be recommended if hand follow-up is somewhat minimal. On the other hand, this spray will not always improve profitability in a hand-pruned and well scouted vineyard.

Last season was a great reminder of the importance of weed and row-middle management. Many escaped severe drought conditions without negative consequences. On very well drained soil, in a drought year, the time for termination is in the next ten to fourteen days. Based on last year's conditions heavier soils with healthy vines allowed for more flexibility with termination timing. After last month, the irony of using the words "severe drought" is not lost on me. That's what we learned last year, so I'm just passing along the knowledge.

In both wet and dry years weed control remains a critical investment for very different reasons. As the effectiveness of round-up continues to wane, growers are investing more and more in weed control. As a percentage, total herbicide costs per vineyard are increasing faster than any other individual expense. Fortunately, the extremely low cost of some herbicides did allow for some wiggle room in the budget. Smart rotations that provide effective control are critical to profitability and sustainability. So far, cover crops have not been shown to reduce passes through a vineyard. It does appear that cover crops do have the ability to make passes more effective. By choking out noxious weeds for as little as \$10 in seeds per acre, inexpensive herbicides continue to provide effective control in some areas. Growers not using cover crop also report effectively using alion, matrix and round-up for nearly season long control of weeds. This effective chemistry can reduce herbicide passes to two, the second being a late season Rely or other post-emergent burn down. I'm told, by those that know far more than me about this stuff, it is hard to beat this level of control. That kind of cocktail does not come cheap. I'm confident that, in many cases, we can achieve adequate or even similar control while investing far less in herbicides.



A question came up at our Coffee Pot meeting yesterday, May 3, about whether a 3- to 5-inch shoot spray for Phomopsis was necessary, or if they could wait until the 10- to 12-inch shoot growth stage. One of the reasons this came up is that we are quite a bit ahead of last year and dodging the frequent rain this spring has made field work difficult. Also, the variety of tasks needed to be done at this time of year makes setting priorities, well, a priority.

**Susceptibility of the variety** – The work done by Wayne Wilcox that showed a significant reduction in yield due to the loss of the shoulder of the cluster from Phomopsis infections was done in a Niagara vineyard. While Concord is also highly susceptible to Phomopsis infection, field observations over the years indicate that Niagara is just as susceptible or slightly more so. For a more complete list of varietal susceptibility to Phomopsis infections you can go to the NEWA website at [http://newa.nrcs.cornell.edu/grapes/phomopsis\\_var\\_table.html](http://newa.nrcs.cornell.edu/grapes/phomopsis_var_table.html)

**Severity of infection periods** – The Network for Environment and Weather Applications (NEWA) <http://newa.cornell.edu> provides a Phomopsis infection event model that, when combined with the National Weather Service five day forecast, can provide information on what infection periods have occurred, as well as the likelihood of weather conditions favoring Phomopsis infections will occur in the next 48 hours. As seen in the table below: “Grape Disease Infection Events for Portland” from the NEWA site, the model tell us that we had conditions which met the requirements for a Phomopsis infection period to occur on both May 1 and May 2.

[illegible]

This table tells us if an infection period occurred, but not the severity of the infection period. For that information you will need to scroll down further on the page and click the button “*Show grape infection events log*” which can be found on the left side of the screen just under the Disease Management table. Looking at the grape infection events log below for CLEREL in Portland, NY, it looks like there have been 4 infection periods recorded so far this spring. However, when the date of bud break is factored in, there has only been one infection event that has occurred when susceptible tissue was available. That one infection event lasted for 21 hours at an average temperature of 54.6 F which would be considered a significant infection event.

Hide grape infection events log

Show leaf wetness events log

Grape Infection Events Log							
When calculating combined wetting periods we use the following rules: 1) an infection event must start with precipitation, 2) successive wetting periods are combined into a single infection event until a dry period of over 24 hours or a wetting period with no precipitation is encountered.							
Starting Date/Time	Ending Date/Time	Hours LW	Avg Temp	Total Rain	Phomopsis	Black Rot	Combined Event
Download Time: 5/3/2017 14:00							
Apr 30 17:01	May 2 15:00	21	54.6	1.44	Infection	Infection	Yes
Apr 19 3:01	Apr 21 5:00	28	53.6	0.90	Infection	Infection	Yes
Apr 3 19:01	Apr 5 6:00	21	50.4	0.71	Infection	No infection	Yes
Mar 26 18:01	Mar 28 20:00	14	46.2	0.02	Infection	No infect; temp<50	Yes

**Disclaimer:** *These are theoretical predictions and forecasts. The theoretical models predicting pest development or disease risk use the weather data collected (or forecasted) from the weather station location. These results should not be substituted for actual observations of plant growth stage, pest presence, and disease occurrence determined through scouting or insect pheromone traps.*

Putting it all together- In answer to the question at the Coffee Pot meeting, we determined that the vineyards in question were either Niagara or Concord and the Concord had received different pruning tactics, machine pruned which has left old canes and rachises in the canopy, hand pruning with enough canes left up to be considered similar to machine pruned and more traditional hand pruned. All vineyards had a history of Phomopsis. The recommendation was to NOT wait until the 10- to 12-inch shoot growth stage to get started with a Phomopsis spray program. All the materials we currently have are protective in nature, so they need to be applied prior to an infection event to be effective. Treatment of vineyards can be prioritized as follows, 1) Niagara vineyards, 2) vineyards that have been machine pruned with little or no hand follow up to remove old canes, 3) hand pruned vineyards that were left heavily wooded and lastly any vineyards that were more like traditional hand pruning.

If you have questions about early season disease management programs, or implementing any IPM strategy in your vineyard operation, please get in touch with either Tim Weigle [thw4@cornell.edu](mailto:thw4@cornell.edu) or Andy Muza at [ajm4@psu.edu](mailto:ajm4@psu.edu)

# North East PA Update

Byran Hed, Lake Erie Grape Research and Extension Center  
North East PA

## Update from North East PA

Weather: We accumulated 4" of rainfall in April at our site by the lake, which is above average for the month of April. April was also warmer than average; we accumulated 131.5 growing degree days in April (long term average of about 75 gdds for April). The first two days of May dumped 1.73" rain on our site, and gdd accumulations have come to a grinding halt (and will remain that way through the weekend). The short term forecast is rain and continuous wetness over the next 3 days, with temperatures in the 40s and 50s.



Phenology: Here by the lake, we recorded 10% pink on April 19 with 50% bud break by April 26; about 4-5 days earlier than average, and about 2 weeks ahead of last year. We currently have 1-3" of shoot growth on Concord vines and about 1-1.5" of shoot growth on our Niagara here along the lake. According to research at Michigan State University (<http://orchardkeeper.com/pdf/IllustratedSpringFrostDamageThresholds.pdf>), 90% of shoots at 1, 2, and 3 leaves will be hardy down to 27-28 F. However, 90% kill will occur at 21F (one leaf) to 26F (three leaves). Temperatures may get into the 30s at night over the next few days.

Diseases: The first disease we should prepare to control is Phomopsis. The first spray for Phomopsis is generally applied at about 3-6" of shoot growth to protect the newly exposed inflorescences, but the timing on this fungicide application should also take into account rainfall patterns because vines can move into and beyond this stage very quickly. For example, unprotected vines that were at 1-3" of shoot growth on May 1, may show lesion development in about 3 weeks on the first couple of internodes and even on cluster stems, due to the 16 hour wetting period that occurred at that time. Continuous rainfall over the next 3 days will put vineyards at risk of Phomopsis, even though we have not yet reached that more vulnerable 3-6" shoot stage. Fungicides that contain mancozeb, ziram, or captan (if allowable by your processor) are the best choice at this time as both are effective. Fortunately, conditions appear to be drying up next week when vines will be going through that 3-6" stage, but these earlier infection events may still result in some damage to area vineyards. Mancozeb products are generally less expensive than ziram and have a shorter reentry period. And you don't need to apply the full 4 lb per acre rate at this time either. All are strictly surface protectants, subject to wash off by rainfall. Also, vineyards that have been machine pruned are going to be at higher risk and will likely benefit most from this spray.



# LERGP

## 2017 COFFEE POT MEETING SCHEDULE

Date	Time	Location	Address
May 3, 2017	10:00am	John Mason Farm	8603 West Lake Rd. Lake City, PA 16423
May 10, 2017	10:00am	CLEREL	6592 West Main Rd. Portland, NY 14769
May 17, 2017	10:00am	Brant Town Hall	1272 Brant Rd. Brant, NY 14027
May 24, 2017	10:00am	Peter Smith Farm	4472 Van Dusen Rd. Lockport, NY 14094
May 31, 2017	10:00am	Dan Sprague Farm	12435 Versailles Rd. Irving, NY 14081
June 7, 2017	10:00am	Betts' Farm	7365 East Route 20 Westfield, NY 14787
June 7, 2017	3:00pm	Archer Pratz Farm	9318 Lake Rd. North East, PA. 16428
June 14, 2017	10:00am	Jeff Schultz Farm	2707 Albright Rd. Ransomville NY 14131
June 14, 2017	3:00pm	Orton Farm	10646 West Main St. Ripley, NY 14775
June 21, 2017	10:00am	North East Fruit Growers	2297 Klomp Rd. North East, PA 16428
June 21, 2017	3:00pm	Kirk Hutchinson Farm	4720 West Main St. Fredonia, NY 14063
June 28, 2017	10:00am	Peter Loretto Farm	10854 Versailles Plank Rd. North Collins, NY 14111
June 28, 2017	3:00pm	David Nichols Farm	1906 Ridge Rd. Lewiston, NY 14092
July 5, 2017	10:00am	Leo Hans Farm	10929 West Perrysburg Rd. Perrysburg, NY 14129
July 12, 2017	10:00am	Szklenski Farms	8601 Slade Rd. Harbor Creek, PA 16421
July 19, 2017	10:00am	Liberty Winery	2861 Route 20, Sheridan, NY 14135





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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](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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**HOURS OF OPERATION:**  
MONDAY - FRIDAY 8:00AM - 5:00PM  
SATURDAY 8:00AM - NOON



**Lake Erie Regional Grape Program Team Members:**

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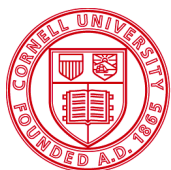
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