LERGP Crop Update

August 25 , 2016

Lake Erie Regional Grape Program

Important dates:

See the flyers for more information on the following events:

August 31, 2016- Cornell Vegetable Program Field Day at CLEREL-Register by Monday!!!!

September 1, 2016-

Cover Crop Conference at CLEREL- Register today!

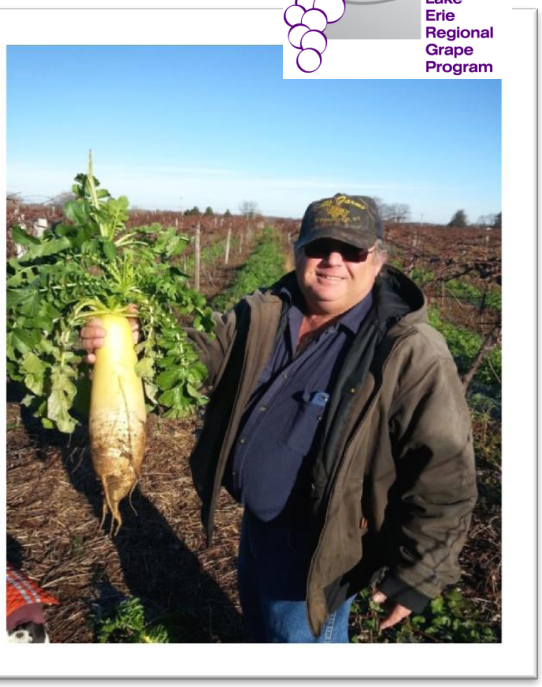
Building Strong and Vibrant New York Communities

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.

Cover Crop Workshop and Field Day

Lake Erie Regional Grape Program

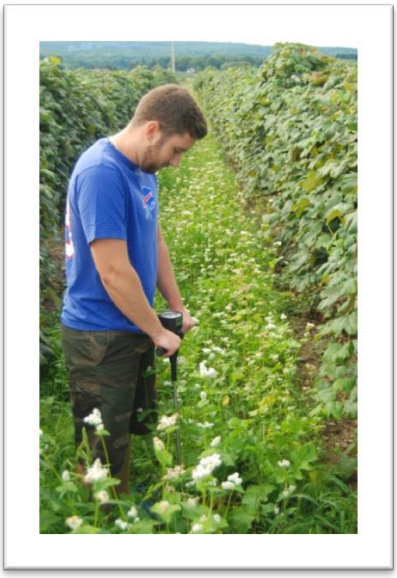
September 1, 2016 @ CLEREL
9:00am-4:00pm
6592 West Main Rd.
Portland, NY 14769



Join the Lake Erie Regional Grape Program for a full day of education surrounding cover crops in Concord vineyards.

- Current research
- Leading scientists in cover crop research
- Tour demonstration plots
- Hear local growers sharing their experience

Fee: $ 10; includes morning refreshments and lunch



Register by August 25, 2016 at the LERGP web-site Registration or call Kate at 716-792-2800, e-mail: kjr45@cornell.edu

NY farm viability INSTITUTE

Come to the Cover Crop Conference and see the root structure of the grapevines in our awesome soil pit!

Dr. Terry Bates educating the audience on soil health and root structure of the Concord Grapevine.

Please register by Sunday evening so we can have accurate numbers for the caterer.

SUSTAINABLE AND ORGANIC VEGETABLE PEST MANAGEMENT
Wednesday, August 31, 2016
3:00 PM – 9:00 PM
Cornell Vegetable Program's Fresh Market Research Site, Cornell Lake Erie Research and Extension Laboratory, 6592 West Main Road, Portland, NY 14769

Topics include:

- Live cultivation demo by K.U.L.T. starts at 3:15 PM
- Weed Management Research Trials in pumpkin/winter squash – Darcy Telenko
- Disease Management in Organic Cucumber and Tomato Production – Abby Seaman and Judson Reid
- Vegetable Disease Control Update – Holly Lange and Rachel Kreis from Prof. Chris Smart's Lab
- Insect management and Specialty Crop Vegetable Variety Demonstration – Robert Hadad
- Improving Fertility Management in Vegetable Crops – Prof. Steve Reiners
- Updates on Ongoing Research Projects in the Region

A number of sponsors will be showcasing some of their products including BioWorks, K.U.L.T., Larry Romance and Son, Siegers Seed Company, Texas Refinery Company, Valent, and Z&M Ag and Turf.

DEC and CCA credits are available for this field day.

Pre-registration $25 CVP enrollees/$35 all others, includes steak dinner and handouts. Pre-registration required by August 25, 2016. Call 716-652-5400 or online at http://cvp.cce.cornell.edu/event.php?id=565
Walk-ins welcome to join the program $35 at the door, but will not receive dinner ticket unless pre-registered by Aug 25, 2016.

Business Management

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

Update on Niagara

Just a quick update on the state of the grape market. Last week I discussed the mixed results growers are seeing in pricing between various cash markets and cooperatives. That variability, as usual, is partially derived from the different exposure each processor has to different markets. In general, direct to retail wine has been the healthiest, direct to retail juice has been the least volatile, and bulk juice the most volatile.

Along those lines, we are seeing a temporary revival of the Niagara market. That's not surprising, considering the frost and winter injury that has reduced Niagara crops for years. On top of that, we've seen a significant reduction in Niagara acreage.

Meanwhile, direct access to retail is showing a continued surplus of Niagara. While the wine market is finding uses, National Grape is releasing Niagara's where growers can find other marketing options. It seems likely that a release is in the Cooperative's best interest. It will allow them to focus on Concord and working through their existing surplus. What about for the average Niagara grower?

Cooperative pricing is a bit of a wild card. However, recent performance suggests National Grape will pay the same or more than most cash market options. Past performance is not a guarantee of future results of course, so perhaps National will pay significantly less.

Most markets will be cash markets paid in full between 15 and 45 days after harvest. While a bird in the hand is worth two in the bush, Uncle Sam says a bird in the bush is worthless. In other words, delivering to a cash market for a year and then switching back to the cooperative may result in additional tax liability that could have otherwise been avoided. A large Niagara grower might realize additional net taxes of $5- $7 per ton. The initial hit would be larger, but that grower would see lower tax rates in 2017 and 2018.

Trucking and harvest scheduling will be grower specific. We have some growers that will end up trucking Niagara's for National to the Finger Lakes. Constellation harvest tends to be very early. Cott harvest tends to be quite late. With the exception of Cott, trucking costs are at least partially (usually fully) reimbursed. What this means for a grower will depend on his preference, other harvest obligations and his location.

Average brix on Niagara will also impact price. All of the processors have a different payment scale for Niagara brix. Generally speaking, Constellation is the least brix sensitive, while Cott is the most. However, National grape does technically allow low brix Niagara that would not be accepted by Cott. They don't pay much, but they do accept them.

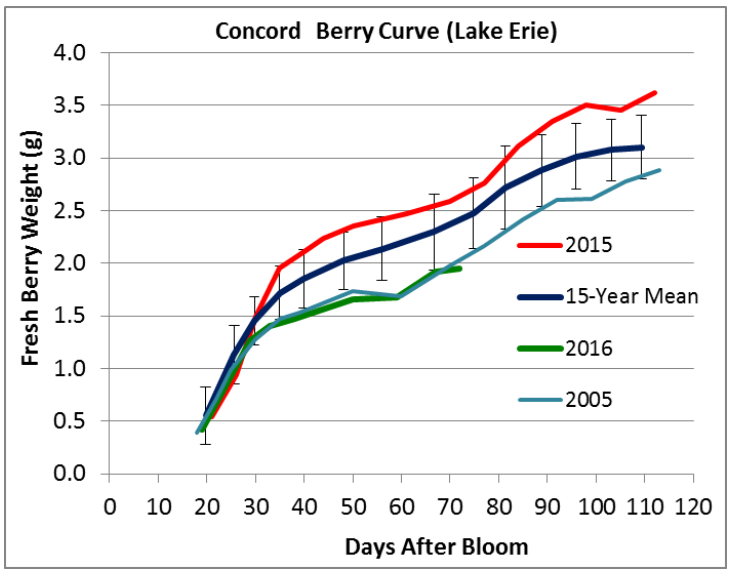
So if you have a decision to make keep in mind that $240 isn't always the same as $240. Also, some people may find themselves flipping a coin as the alternative could be about equal to their current situation. At that point perhaps doing what your buyer/cooperative wants allows you to build goodwill.

Cultural Practices

Luke Haggerty,Viticulture Extension Associate, Lake Erie Regional Grape Program

Cover Crop Conference, Berry Curve, and Precipitations Levels

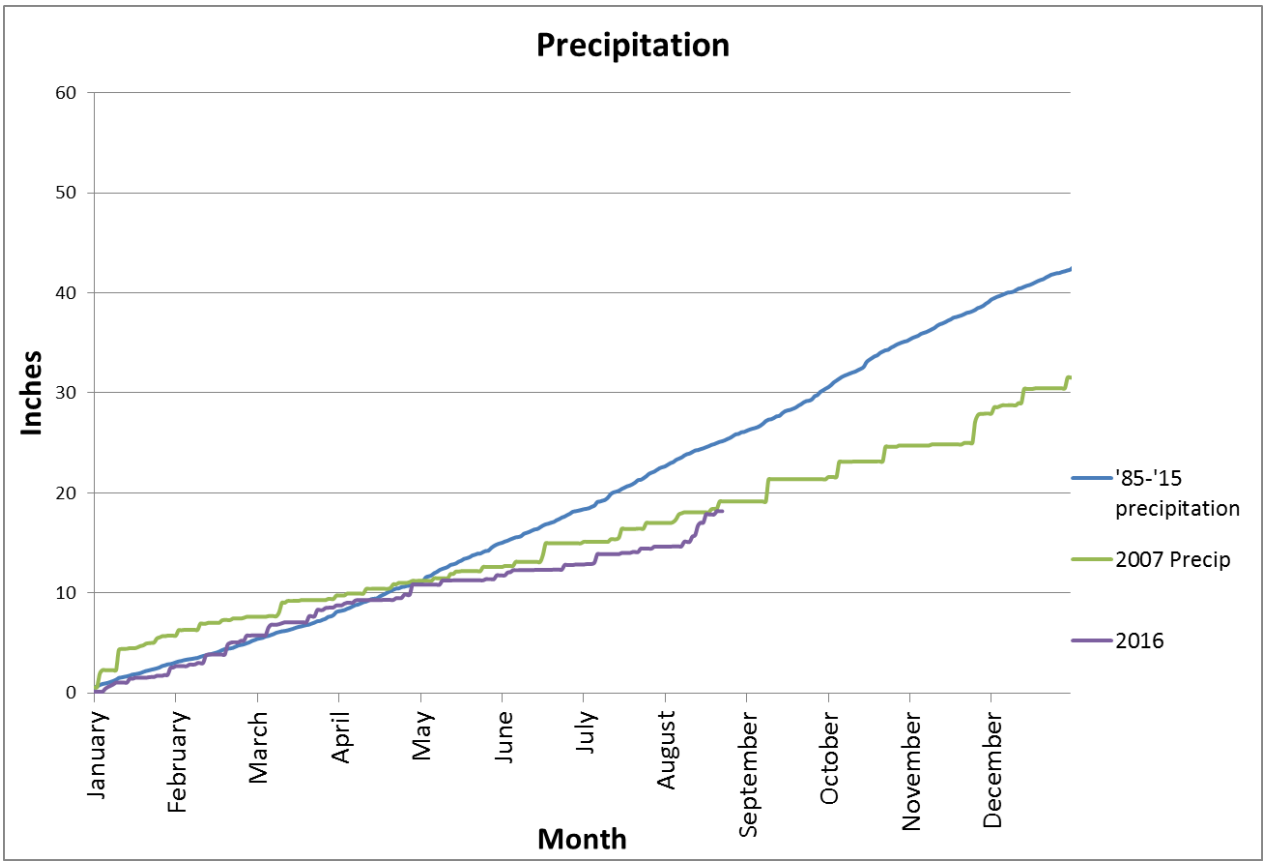
Cover Crops: The September 1st conference starts at 9 AM (registration at 8:30) and will run until 4 PM. The CLEREL meeting facilities, 6592 West Main Road, Portland, NY 14769, will be used for the classroom portion of the program. Registration is $10 to cover refreshments and lunch. **To register for the conference, visit the Lake Erie Regional Grape Program website at http://lergp.cce.cornell.edu or in person at CLEREL. Deadline for registration is August 28th (Don't wait to signup!).** If you have questions please contact Kate at (716) 792-2800.



Berry Curve: The berry curve had a small jump this last week. Earlier this week Cain and the research crew started to take samples in their 'crop estimation' blocks. Berry size was relatively comparable to our berry curve. Small berries! Berry size is 20% below average with most average coming in between 1.6 and 2 grams. Average berries for 75 days after bloom is 2.48 grams. At this point, the berry curve is still tracking very close to 2005 where the growing season was also hot and dry followed by rain after veraison.

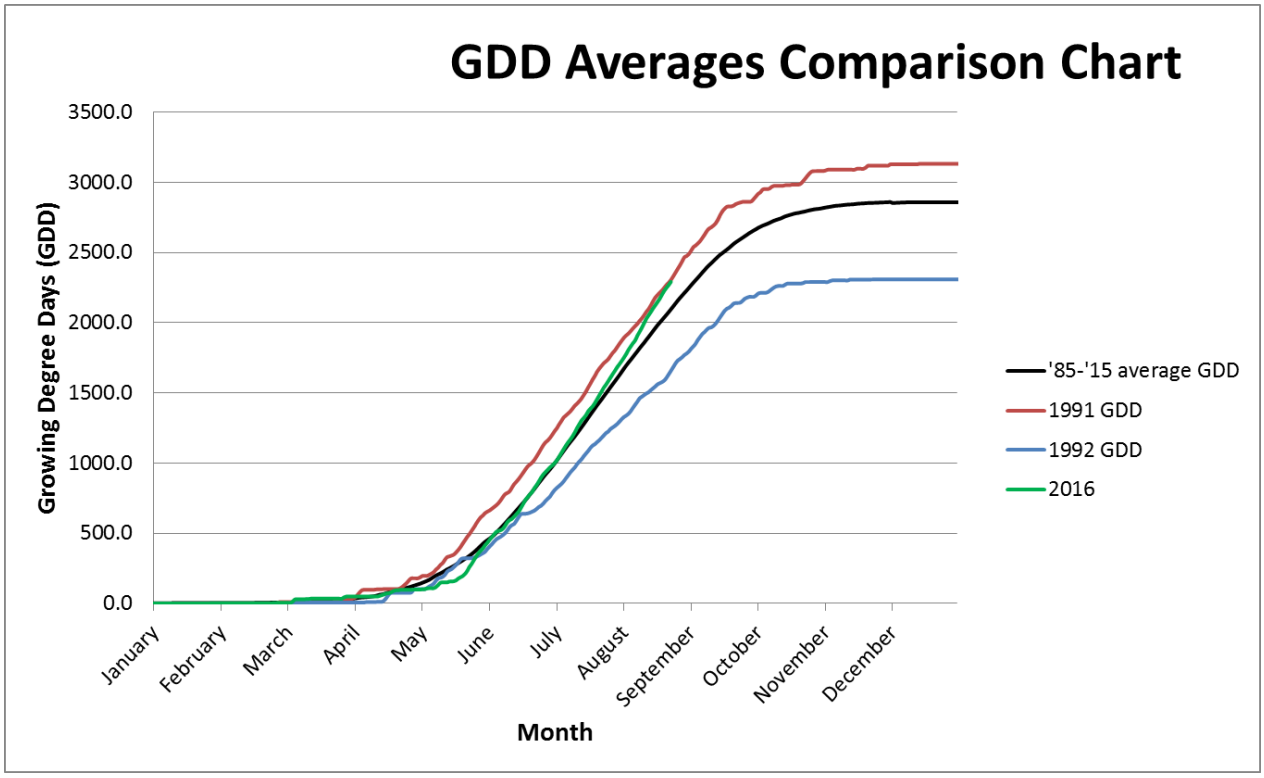
Precipitation and GDD: Here at CLEREL we are now 6.8 inches below average (two weeks ago we were 8.5 inches below average). Westfield now has a NEWA station and has been added to the website and table below. Most areas in the belt received between .2 and 1.3 inches of rain in the past week. The precipitation chart below reflects the precipitation throughout the year.

With the dry weather we have also had one of the warmest growing seasons in the past 30 years. From 1985 to present, 1991 was the hottest season and the Growing Degree Day graph shows we have reached the accumulated GDDs of 1991 as of 8/25/16. If this trend continues 2016 has the possibility of becoming the warmest growing season in the past thirty years.



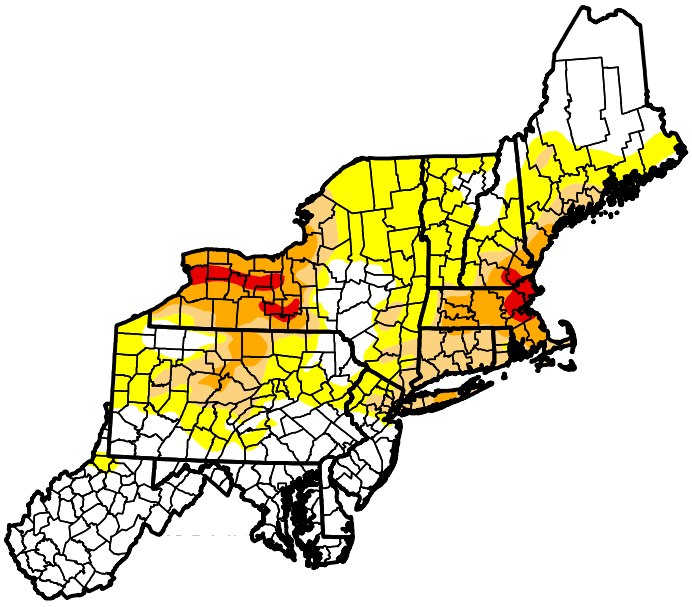
Lake Erie Grape Region NEWA Weather Data							
Location	**Past week Precip**	**Precip Aug total**	**Precip July total**	**Precip June total**	**Precip May total**	**May-8/18 total**	**Total March GDD**
North East Lab, PA	0.12	3.73	2.68	1.92	2.13	**10.46**	2189
Harborcreek, PA	0.3	3.41	2.04	1.74	1.68	**8.87**	2147
North East Escarpment	0.42	3.42	2.81	2.37	1.52	**10.12**	1994
Ripley	0.93	3.39	1.20	3.86	1.50	**9.95**	2176
Westfield	1.15	2.67					2127
Portland CLEREL	1.29	2.94	1.63	1.44	1.48	**7.49**	2125
Portland Escarpment	1.24	4.38	1.43	1.24	1.56	**8.61**	2200
Dunkirk	0.93	2.98	1.52	2.16	1.13	**7.79**	2031
Silver Creek	1.49	3.59	2.20	NA	1.78		2071
Sheridan	1.25	3.42	1.83	2.23	1.85	**9.33**	2148
Versailles	1	2.86	2.35	1.47	1.72	**8.40**	2020
Appleton North	0.51	2.4	1.18	1.41	0.71	**5.70**	1942
Somerset	1.1	3.84	4.76	1.53	0.94	**11.07**	2086
Ransomville	1.4	2.9	1.45	0.93	0.92	**6.20**	2235

Note: All Weather data reported as of 8/24/2016 NA=Sensor Malfunction.
Precip in inches.



U.S. Drought Monitor

Northeast



August 23, 2016

(Released Thursday, Aug. 25, 2016)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	44.14	55.86	25.61	12.16	2.32	0.00
Last Week *8/16/2016*	42.57	57.43	26.80	12.02	2.32	0.00
3 Months Ago *5/24/2016*	60.17	39.83	0.78	0.00	0.00	0.00
Start of Calendar Year *12/29/2015*	62.10	37.90	6.60	0.00	0.00	0.00
Start of Water Year *9/29/2015*	42.41	57.59	9.00	0.00	0.00	0.00
One Year Ago *8/25/2015*	76.67	23.33	2.17	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Brad Rippey
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

Cornell Focus Group with Grape Producers

When: Thursday, September 8th, 10:00 AM - 12:00 PM
Where: CCE Lake Erie Regional Grape Program at CLEREL, 6592 W Main Rd, Portland, NY 14769
Why: Share your Thoughts, Receive a FREE Lunch, and Enter a Raffle to Win a Tractor Supply Gift Card
Hurry: Space is limited to 10 Farmers!
Registration: Signup online at this site: https://goo.gl/forms/F8kSpnJTFxNXTCns1
For More Info: Allison Chatrchyan (607-254-8808/amc256@cornell.edu), or Luke Haggerty (716) 792-2800 (lhaggerty@cornell.edu)

Are you a grape producer who has recently experienced the impacts of extreme weather or other changes in climate on your farm? Would you like to participate in cutting edge social science research to better understand farmer views and adaptations to climate impacts?

Please join Cornell University researchers and the CCE Lake Erie Regional Grape Program on September 8, 2016, from 10:00 AM to 12:00 PM for a FREE lunch and Focus Group Meeting to share your thoughts and experiences with other farmers and researchers. This focus group discussion will enable farmers to learn more about how their peers are responding to climate impacts, and will help universities and the USDA develop new information and tools to support farmers to adapt and thrive in a changing climate, and become more energy efficient.

Your participation is voluntary, but your feedback is important to us! All Responses are confidential - the information you provide will not be identifiable with your name or farm. We will be holding additional focus group sessions later this summer and fall with dairy, tree fruit producers, and consultants as well, so please stay tuned.

Space is Limited to 10 grape producers! Once we get your initial interest via the form below, we will get back in touch you to confirm your participation.

For further information on this project, please contact Allison Chatrchyan (607-254-8808, or amc256@cornell.edu); Luke Haggerty (lhaggerty@cornell.edu); or Jonathan Lambert (jl3356@cornell.edu).

Thank you!

Allison, Luke and Jonathan

IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

Grape Berry Moth – A fourth generation?

The phenology-based degree day model for grape berry moth management shows we are well past the timing for treatment of the third generation. But what about a fourth generation?
The current reports from the model are;

Pest Status: Reduced egg-laying after this time, most pupae enter diapause (overwintering stage) after 1700 DD.
Pest Management: With the exception of extremely warm years no further action is required.

So what is an extremely warm year? Looking at the GDD chart found in Luke's article this week you can see that as of August 24, 2016 we have accumulated a couple of hundred extra growing degree days over the 30-year average. Although we started the growing season on the cool side, once we started to accumulate DD for the GBM model (wild grape bloom) the weather rebounded with warmer than average temperatures to provide what would be considered to be an extremely warm year.
The grape berry moth model on NEWA is based on the fact that it takes 810 DD (Base temp 47.14 F) for the GBM to complete a single life cycle from egg to egg-laying female) So, for a fourth generation to occur according to the model a station would need to record 2430 DD. Looking at the Ransomville station (warmest station in the Lake Erie region other than airports) and the extended forecast, it will be at least 10 days, or September 8, 2016 before we reach 2430 DD if we continue to pick up an average of 26 DD per day.

NEWA Location	Wild grape bloom date*	DD Total on August 25
Versailles	May 30	2062
Dunkirk Airport	June 3	2032
Sheridan	May 31	2147
Silver Creek	June 3	2047
Portland Escarp.	May 31	2124
Portland	June 1	2098
Ripley	May 31	2155
North East Escarp	June 2	1942
Harborcreek	May 31	2144
North East Lab	June 2	2129
Erie Airport	May 30	2286
Ransomville	June 1	2174
Somerset	June 3	2050
North Appleton	June 10	1847
* Estimated date provided by NEWA website		

What does this mean for your management strategy?

Look at your scouting records over the year. While we found GBM damage in severe risk vineyards, it was harder to find significant damage in low, intermediate and even some high risk vineyards this year. One of the suggestions for this was the hot, dry growing season that we experienced. The first instar larvae of grape berry moth typically have a short amount of time to feed their way into a grape berry. The hot, dry conditions of

this summer made the microclimate outside the egg much less friendly for these larvae and may have stopped a number of them from successfully entering the berry before they died. So while we say scouting is important every year, this year it will definitely pay to know what type of damage you have going into a potential fourth generation.

To spray or not to spray…

The Pest Status for the model states that there is reduced egg-laying after this time and most pupae enter diapause (overwintering stage) after 1700 DD so why do we worry about a fourth generation? The key word here is *most*. If there is a lot of grape berry moth in a vineyard at 1700 DD and most pupae enter into diapause, there are still at least *some* that will continue on to complete their lifecycle and potentially lay more eggs – creating a fourth generation. So again, scouting is critical to know if most pupae entering diapause leaves the potential for a small or large fourth generation.

At this point in the season canopies are at their maximum density and make getting an insecticide into the fruiting zone very difficult. If you own vineyards with a history of grape berry moth damage, develop a harvest strategy that will allow you to get those grape off as early in the season as possible.

If you would like assistance in developing an IPM strategy for grape berry moth in your vineyard operation please do not hesitate to contact either myself thw4@cornell.edu or Andy Muza at ajm4@psu.edu.

Research

Cain Hickey, Postdoctoral Research Associate, CLEREL

Veraison is here! (and likely elsewhere…)

We called Sunday, August 21st to officially be "veraison" here at CLEREL in Portland, NY.

What is veraison? In its most basic, simple, and popular terms, veraison marks color change in grapes. However, this is certainly not the only physiological change occurring in the berries at this time… particularly in whites. If your Niagara grapes are turning red, they aren't Niagara grapes. Veraison marks the stage that berries resume rapid growth (Fig. 1), primarily due to the influx of water and sugar. Note that sugar accumulation starts before anthocyanin (red/blue color pigments) accumulation at the onset of veraison (Fig. 1) and, therefore, there is measurable sugar in green grapes as veraison begins. Veraison is a transitional period during berry development that delineates the berry formation and development stage (*before* lag phase, Fig. 1) from the berry ripening stage (*after* lag phase, Fig. 1). Changes manifested in berries throughout veraison, that continue to lesser or greater extents through harvest, include berry softening, sugar accumulation, acid degradation and/or dilution, and accumulation/degradation of sensory impact compounds (often variety-specific, but things like anthocyanins, methoxypyrazines, trans-2-hexanal, norisoprenoids, etc). These physiological processes make the grape (now containing seeds viable to germinate), more palatable, an evolutionary tactic to attract seed dispersers. However, these same processes make the grape (and its many value added products) attractive to humans, which is why we cultivate grapes.

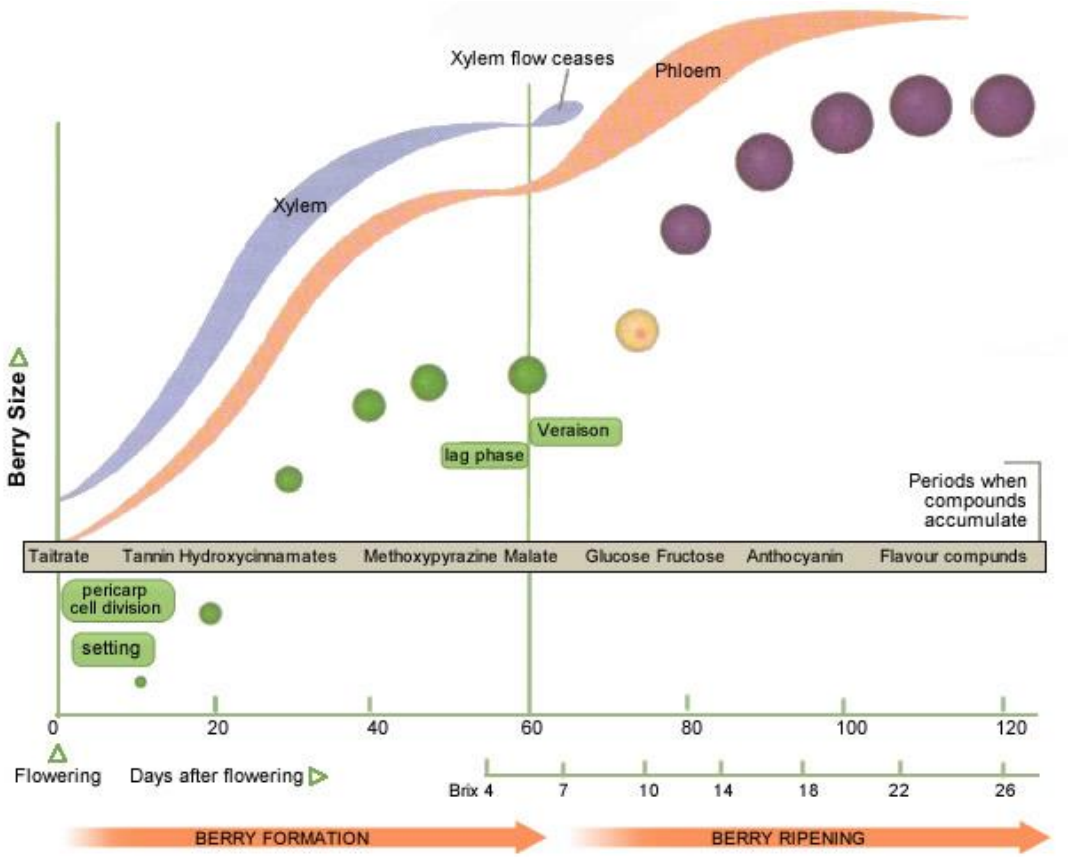


Figure 1. Grape berry development (taken from Keller 2010, who reproduced from Coombe 2001).

When are you officially at veraison? As mentioned above, veraison is a transitional period. It starts with berry softening and sugar accumulation and ends… well, I am honestly not sure if I know when veraison officially ends. In fact, when veraison begins is almost as elusive as when it ends. In the Lake Erie region, veraison tends to occur approximately 70 days or so after bloom in Concords… but this will depend on many factors, including the objective (subjective?) measurements one uses to define veraison. We here at CLEREL called veraison on Sunday with what I could tell to be about 35-50% of clusters containing *some* (a very subjective term) color. A poster outside in the lobby at CLEREL marks veraison at 5% color. I have also recently heard veraison is "50% of color in 50% of the clusters" – I guess this means when 25% of the total berries in the vineyard are colored. I asked a grower today and he said "when I lift up my canopy and see some color." In Virginia, where I was located before here at CLEREL, our research team called veraison to be when 50% of all berries were colored – but we never quantified this. I am not sure any of these "veraisons" are right or wrong. I guess it really does not matter much when veraison begins and/or ends - as long as it happens, it will mean that we are into the ripening period – an exciting place to be! I would advise to use what you have always used as your "official indicator" of veraison, and stick with it for annual consistency.

Where are we at in terms of fruit ripening? Some in the Lake Erie Concord region may be ahead of or behind us here at CLEREL. And this can depend on many factors, including vineyard microclimate (i.e. bloom date, proximity to lake), but also crop load, vine training, vine age, etc. Again - it also matters on the metrics used to define "veraison." So, let's use some more objective measurements to define where things are at in terms of soluble solids (°Brix) accumulation.

This week (Aug 22-26, 2016) was the first week this season that our research team (Autumn Howe, Madonna Martin, Paula Joy, Rhiann Jakubowski, and Jake Jankowski) set out to begin sampling berries across the Lake Erie Concord region (Sheridan to Harborcreek, specifically). We are sampling in vineyards in which we have already executed extensive NDVI canopy scanning up to this point. We are seeking to evaluate if fruit ripening rate varies across NDVI- and soil sensor-derived management zones in each of these vineyards. This will be accomplished by sampling in several locations throughout each management zone (see Fig. 2 on next page for an example) on several dates between and inclusive of veraison and harvest. Our first sample from this week showed that soluble solids concentrations ranged 8.4 – 9.8 °Brix across all sampled vineyards. For now, I will leave it at that and not take the time to analyze soluble solids between management zones, as the rate of soluble solids accumulation is often *initially* similar between vines with different crop loads (Bates 2008). This is supported by the relatively narrow range of soluble solids across all the vineyards we have sampled this week, which encompass variable microclimates and management practices, and (likely) crop loads. Bates (2008) also showed that season can make all the difference in terms of fruit maturation – in a warm, dry year when carbon gain is not limited, there is an attenuated difference in ripening rate between over- and under-cropped vines. Nonetheless, it is hypothesized that ripening rates will differ throughout the sensor-defined management zones as the season progresses, particularly if those management zones are characterized by differences in vine size that result in over- or under-cropped vines. This season, however, may turn out to be one in which fruit is easy to ripen across a broad range of crop loads. To be determined…

This is the time of year that all of your hard work in the vineyard will hopefully pay off. Enjoy this time, "the calm before the storm." Hope to see folks soon. Good luck! -Cain

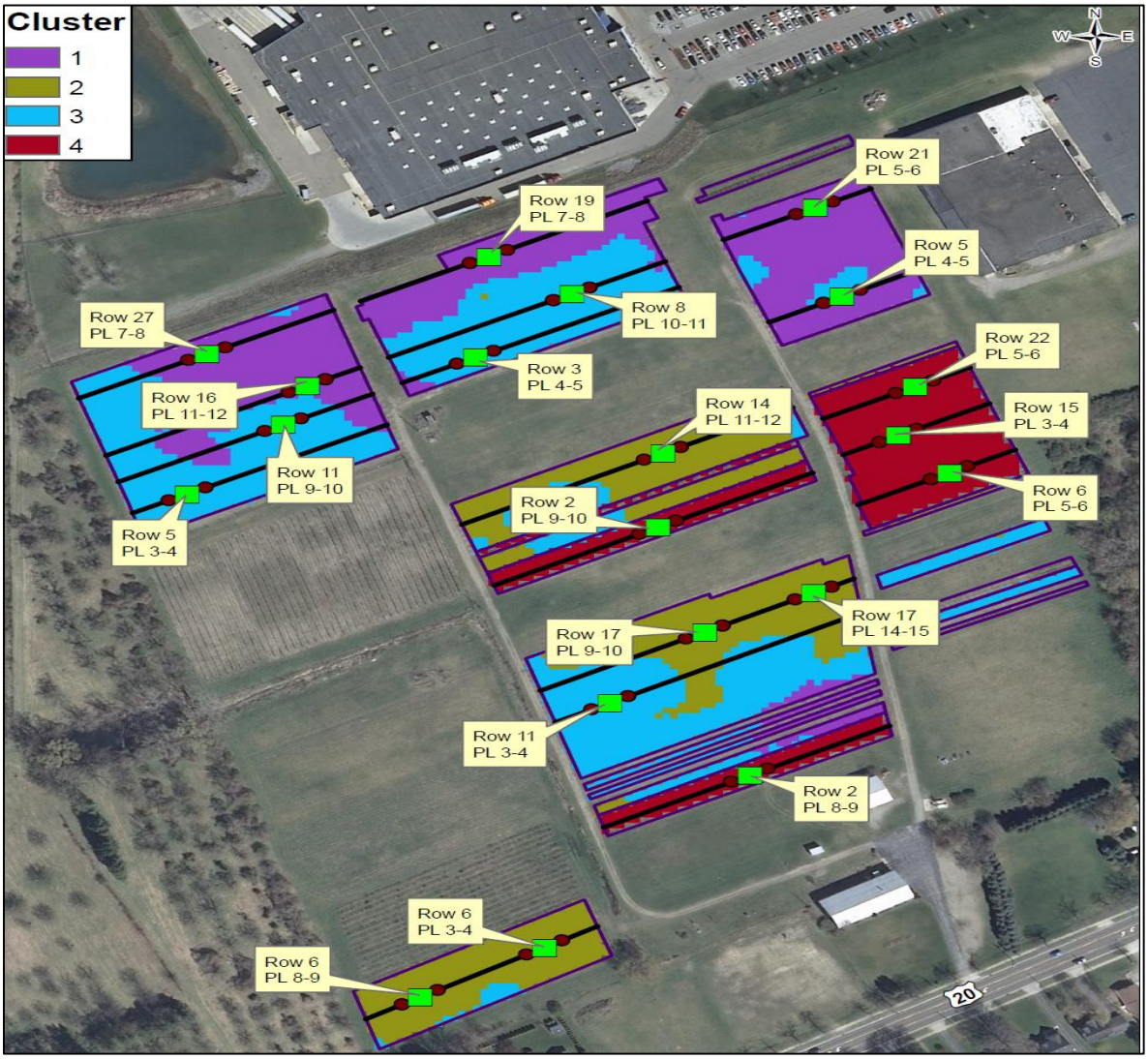


Figure 2. Random test plot sample locations for collecting fruit chemistry in a vineyard in Lake Erie region; cluster = management zone derived from NDVI canopy and soil sensor scans (reproduced with permission from Rhiann Jakubowski – thank you, Rhiann!).

References:

Bates, T. 2008. Pruning level affects growth and yield of New York Concord on two training systems. American Journal of Enology and Viticulture 59: 276-286.

Coombe, B.C. 2001. Ripening berries – a critical issue. Australian Viticulture 5: 28-34.

Keller, M. 2010. The Science of Grapevines: Anatomy and Physiology, 1st Ed. Academic Press.

In the Vineyards, PA

Andy Muza, County Extension Educator, Penn State, LERGP

Insects

Grape Berry Moth – Eggs are still being found to varying degrees depending on the site (Figure 1). The percent of clusters with GBM eggs at High Risk sites ranged from 0% - 12% (3 eggs/25 clusters). At 1 Severe Risk site eggs were still easy to find. (Figure 2). This site does not represent a normal situation for the majority of blocks in the region. However, it shows that significant egg laying can continue over an extended period of time at sites with high GBM population levels.
It has been about 2 weeks since High and Severe Risk sites should have received an insecticide spray according to the GBM Degree Day Model in NEWA http://newa.cornell.edu/index.php?page=berry-moth . Now would be a good time to determine the effectiveness of your management program by checking these sites for current injury levels.

Figure 1. Concord berry with GBM egg

Figure 2. Concord Cluster with GBM eggs and injury

Diseases

The good news is that there is not much to report concerning diseases.
No **downy mildew** was found despite checking Niagara, Delaware, Fredonia and Concord blocks. **Powdery mildew** was at moderate levels in these blocks (Figure 3).

Figure 3. Fredonia leaf with powdery mildew lesions

North East, PA Update

Bryan Hed, Research Technologist, Lake Erie Grape Research and Extension Center

Weather: Our August total is now 3.78" (which includes the 0.05" just this morning) at the North East lab. According to NEWA, most areas of the Lake Erie Grape Belt are now reporting at least 3 inches of precipitation in August. More rain is in the forecast for the weekend. Growing degree day accumulations since April 1 are about 2146, definitely ahead of average. Today we will pass our average gdd accumulation for August with 6 days to go and temperatures predicted to be above normal for the remainder of the month. In fact, this is shaping up to be the warmest August (by a long shot) since I started working with grapes back in 1999, seventeen years ago.

Our latest whole cluster brix assessment here at the North East lab showed 8.4 (Aug 22) and 8.9 brix (Aug 23) for Concord and Niagara, respectively. If my calculations are correct, this means that about 67-68 days occurred between 50% bloom and about 8 brix/beginning of coloring.

With less than a tenth of an inch of rain over the past week, the threat of downy mildew has diminished again. Scouting at our farm has not produced a single downy mildew lesion among thousands of young unprotected leaves close to the ground. And, the DMCast model in NEWA has not reported a single downy mildew infection period since the 18th (a week ago). Any downy that resulted from the wet period of August 8-18 would have produced leaf lesions by now and the wet weather/high humidity overnight would have caused those leaf lesions to sporulate by this morning. Again, the strategy at this point is to just to keep your eyes open and scout susceptible vineyards in areas most likely to develop downy first. As I stated last week, the DMCast model may over-predict infection risk after a long dry period. It's not over yet, but with all the downy mildew inoculum laying around after last year, I never would have guessed that this may just turn out to be the year that downy 'takes a holiday'.

Seedless Table Grape Variety Field Day at Double A Vineyards

When: August 29th, 2016

Where: Double A Vineyards
10317 Christy Road Fredonia, NY 14063

Starting at 1:00pm Double A Vineyards Owner, Dennis Rak and Viticulturist, Rick Dunst will be hosting a field day at the warehouse location on Christy Road. We hope this will give our customers and aspiring growers an opportunity to look at existing and up and coming seedless table grape varieties. Come taste a handful of different varieties and learn about their production and marketing opportunities as well as a take a look at how they grow in the vineyard!

2016 eNEWA Grape Project Subscription Sign-Up

Subscriber information

Name_____

Email address _____

City_____

Select Location(s) (circle as many as you like, or write in below)

_____

Lake Erie Region	**Sheridan**	**Lakemont**
Appleton, North	**Silver Creek**	**Lansing**
Appleton, South	**Versailles**	**Lodi (Lamoreaux)**
Dunkirk	**Finger Lakes Region**	**Lodi (Shalestone)**
Erie	**Aurora**	**Lodi (Standing Stone)**
Harborcreek	**Branchport**	**Penn Yan**
North East Escarpment	**Dresden (FLGP/FLCC)**	**Romulus (B. wood Grove)**
North East Lab	**Dundee (Weimer)**	**Romulus (Thirsty Owl)**
Portland	**Fayette 3 Brothers**	**Varick (Swedish Hill)**
Portland Escarpment	**Geneva**	**Watkins Glen**
Portland Route 5	**Geneva (Bejo)**	**Watkins Glen (Lakewood)**
Ransomville	**Hector**	
Ripley	**Interlaken (Airy Acres)**	

Select eNEWA Delivery Times (write in times below) Delivery requests should be on the hour.

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Mail to: Tim Weigle, CLEREL, 6592 West Main Road, Portland, NY or scan and email to thw4@cornell.edu

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The Only FRAC Group U6 Fungicide
Labeled for Grapes & Cucurbits
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Protectant / Preventative Action

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LERGP Website Links of Interest:

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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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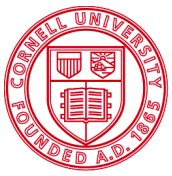

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