The Lake Erie Regional Grape Program

Crop Update for June 19, 2014

Upcoming Event Dates to put on your calendar:
Please note the deadline for registration for each event.

June 25th, 2014- COFFEE POT MEETINGS: *Note that there are 2 meetings on this date!*
10:00am- Tom Tower, 759 Lockport Rd. Youngstown NY 14174
3:00pm- Archer & Pratz Inc. 9813 Lake Road. North East PA 16428

June 21, 2014- Hops Production in the Lake Erie Region
Full day conference focusing on the process of commercial Hops production. The morning program will consist of oral presentations presented at CLEREL and then after lunch the group will move outside to the hopyard. Deadline for pre-registration: Thursday June 19, 2014

August 20, 2014- Thompson Ag Pig Roast- more info to come-

Information and registration forms for all of the listed events are available in this update.
Registration is also available on-line for most programs at our web-site: **lergp.cce.cornell.edu**

The password for the LERGP web-site changed on April 24th. An e-mail was sent to everyone who has renewed their membership for the 2014 year with the new password. If you believe your name has been omitted in error, please give me a call at the office, 716-792-2800 ext 201, or stop in and we can review.

Thank you!
Katie

Business Management

Grower Investments 2015

Kevin Martin, LERGP, Penn State University

Last week I touched on the impact 2012 is currently having on some growers. The feedback I have received has been spot on. Growers that were able to financially weather 2012 were able to reasonably invest and care for their vineyards despite the frost damage. In doing so, something as small as a crop advance in 2013 on a large crop, provides adequate cash for 2014 crop year operating expenses. As we noted before, cash flow for cash market growers is straightforward. While it does vary based on debt load and 2013 crop sizes, there is little room for surprise.

To get to this point crop insurance, fiscal conservatisms, and built up equity all play important roles. While not universal, there seems to be a strong upward trend in vineyard maintenance expenses and investment. Communications with growers, and all indications, show the majority of growers are not experiencing issues with cash flow related to 2012.

Growers attending coffee pot meetings averaged more than two pre-bloom sprays. Material costs did not vary significantly and fell in the range of $32 - $50 per acre over the course of all pre-bloom spray applications. The experts tell me we should be seeing some significant disease pressure. Vineyard observations indicate robust spray programs are fairly effective. Site visits I have been on, so far, do not seem to be in jeopardy of losing crop of economic significance.

Fertilizer applications ranged from $75 to $275 per acre. While practices do not necessarily fall within recommended guidelines, growers seem to be narrowing practices toward that end. Given current prices, there were some growers that should have spent around $50 more pre acre, as well as, growers that could have easily saved $100. Potash, despite significant price declines, remains the most expensive material.

Growers on the higher end of spray material costs for these first sprays, as well as, the post bloom spray that have kept fertilizer application costs below $200 per acre have set themselves up well for an efficient and productive year. This puts them on target to keep operating costs below the benchmark target of $850 per acre.

Cultural Practices

Grape Bloom and Fruit Set

Luke Haggerty
Viticulture Extension Associate
Lake Erie Regional Grape Program

Bloom was declared on check vines at the Fredonia lab on Sunday, June 15th and Monday, June 16th at the Portland lab. The warm weather has helped move bloom along ahead of early predictions. However, cooler sites and areas along Route 5 are further behind with vineyards going into bloom now or will be in the next few days.

Fruit set: Pollen tubes respond to temperature. Florets will fertilize within 12 hours when temperatures are between77°F and 86°F and 24 hours with temperatures at 68°F and 48 hours with temperatures at 59°F. When temperatures fall below 59°F fertilization will not occur. The past week of weather has been favorable for fruit set in the areas that are in bloom. A question I've been getting at coffee pot meetings is, "what causes poor fruit set?" To address the question, I have compiled some of the reasons.

Causes for poor fruit set:

- **Weather:** Cool, wet, and overcast conditions.
- **Weather Events:** Basically any event that damages the vine or the canopy can result in poor fruit set, for example winter damage, hail, and early fall frosts.
- **Vine Nutrition:** Healthy vines have the best potential for vine fruitfulness. C:N ratio plays a large role in fruit set (needs to be balanced), and micronutrients boron and zinc are important for early season shoot growth.
- **Vine Balance and C:N ratio:** Vines with high vigor have high N and a low C:N ratio, small or weak vines tend to have low N and a high C:N ratio; both cases can lead to poor flower development and fruit set.

Lake Erie Grape Region NEWA Weather Data

Location	Date	High (F)	Low (F)	Precip.Past 7 days (in)	Total Apr GDD	Total Jan GDD
North East Lab, PA	6/18/14	77	61	0.77	620	620
Harborcreek, PA	6/18/14	80	63	0.72	666	666
North East Escarpment	6/18/14	83	61	0.9	644	644
Ripley	6/18/14	87	61	1.75	648	648
Portland Route 5	6/18/14	79	63	1.03	597	597
Portland CLEREL	6/18/14	77	62	0.81	604	604
Portland Escarpment	6/18/14	79	62	1.27	639	639
Dunkirk	6/18/14	76	64	0.84	567	567
Silver Creek	6/18/14	75	65	NA	560	560
Sheridan	6/18/14	87	67	NA	NA	NA
Versailles	6/18/14	76	64	NA	587	587
Appleton	6/18/14	69	67	1	456	456
Somerset	6/18/14	70	67	1.15	565	565
Appleton South	6/18/14	78	63	1.51	541	541

Note: All Weather data reported as of 6/18/2014. NA=Sensor Malfunction

DATE/YEAR	HIGH	LOW	DAILY PRECIP.	GDDs	TOTAL APRIL GDDs	TOTAL JAN GDDs
Week of 6/4/14	75.7	56.71	0.06	113.5	453	453
Week of 6/11/2014	72.4	54.70	0.18	95	548	548
Week of 6/18/2014	**80**	**60.00**	**0.08**	**141**	**689**	**689**
Average(from 1964)	77.1	57.90	0.90	122.7	583	608
June Precip.Week 1= .39" Week 2 = 1.23" Week 3 = .57" Week 4 = xx.x"						
Total Precip: March = 2.62" April = 3.66" May = 5.5"						

IPM

Grape Berry Moth Using the Phenology-based Degree Day Model

Tim Weigle, NYSIPM, LERGP

The 2013 growing season was a good test for the new Phenology-based DD model for scheduling scouting and timing insecticide applications for grape berry moth. After the initial year of large scale testing with the general grower population we found a couple of items that we need to address this year. The most common concern last year was about late season damage seemingly coming out of nowhere. Working back through the scouting and spray regime used helped us to pinpoint a couple of areas that will need some greater attention this year. The first is the best way of determining when wild grape bloom occurred near a specific vineyard block. Wild grape bloom is used as the biofix to start accumulation of degree days for the GBM model (which is why you always see a difference between accumulated growing degree days for a station location and the corresponding degree days for the GBM model at that location. The model on the NEWA website will provide you an *estimated* date of wild grape bloom, specific to each weather station's location. This is accomplished through the use of this year's temperature data and comparing it with the information found in databases of past temperatures and Concord phenology data at the Fredonia Vineyard Lab. As this is only an estimate, it makes sense that you can make the model more specific to your area by determining wild grape bloom. However, there are a number of different species of wild grape out there and it is difficult to determine if you have the correct wild grape to use as the model biofix. Jody Timer, Penn State Dept. of Entomology, North East Lab has cuttings of the wild grape species that was used to develop the biofix date for the model and has offered them to growers who are interested in planting them for use with the model.

NEWA Location	Wild grape bloom date*	DD Total on June 19, 2014
Versailles	June 5	276
Sheridan	**May 31****	**581****
Silver Creek	June 9	225
Portland Escarp.	June 4	299
Portland	June 7	263
Portland Route 5	June 7	264
Ripley	June 3	328
North East Escarp	June 3	319
Harborcreek	June 3	330
North East Lab	June 5	283
Lockport	June 9	219
Ransomville	June 9	215
North Appleton	N/A	N/A
South Appleton	June 9	206

* Estimated date provided by NEWA website
** use information with caution. Temperature information is suspect.
N/A – 2 days of missing data, model cannot accurately be run.

If you do not want to plant a wild grape, I would suggest that you choose a wild grapevine, mark it, and make sure that you use the same vine each year. It is not unusual to see a difference in bloom date between clusters that are exposed to the sun and those that spend most of the day in the shade. By carefully selecting a vine and using it each year you will be

able to fine tune the model results around that particular plant. Since we are just in the beginning staging of implementing the GBM model, it would be helpful in using the model if you ran the model using different wild grape bloom dates to determine how it affects the results. The model can be easily updated by changing the date of wild grape bloom (Figure 1). Bracketing the bloom date you determined will give you a better idea of the range of things that can be happening with GBM. A worst case scenario would be to use a bloom date that is too early, resulting in the model providing scouting and spray timings that are too early. This can lead to an under estimation of GBM damage so no sprays are applied, or if an insecticide is applied – it is applied too early to provide good control.

This brings me to the second area that needs a bit more attention this year. Grape berry moth will not overtake an entire vineyard in one year, unless it is a very small vineyard (less than 5 acres) surrounded by woods. In order to have the model work well for you in the future you should put a bit more effort into your scouting (more trips through the different vineyard blocks) to determine if the model results are lining up with what is actually happening in the vineyard. Scouting in July and walking away, or spraying once and not going back until immediately before harvest has been the recipe for ensuring late season grape berry moth problems.

Implementing the GBM model in your vineyard operation will be a lot like thinning, there is some art that needs to go with the science. By putting in some extra effort in scouting vineyards, running the model using different wild grape bloom dates, and then matching model results to what you are actually seeing (plus I hear growers sometimes use a fudge factor in their thinning calculations) you will develop the best method of using the GBM model in your vineyard operation.

Portland

Grape Berry Moth Results for Portland

Wild Grape Bloom: 6/7/2014

Wild Grape Bloom date above is estimated based on degree day accumulations or user input. Enter the actual date for blocks of interest and the model will calculate the results more accurately.

Accumulated degree days (base 47.14°F) wild grape bloom through 6/19/2014: 251 (0 days missing)

Daily Degree Days for Portland

Base Temp	Past	Past	Current	5-Day Forecast			Forecast Details	
	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24
47.14F - GBM	30	22	22	20	20	23	26	27
Accumulation	219	241	263	282	302	325	351	377

NA - not available

Download Time: 6/19/2014 12:00

Pest Status	Pest Management
First generation of grape berry moth larvae are hatching and beginning feeding. Grape berry moth will not be at significant population levels in all but the highest risk vineyards.	Research has shown that this insecticide timing for the first generation provides little, if any, additional control of grape berry moth in vineyards classified as being at low, intermediate or high risk for grape berry moth damage. However, an insecticide timed with the immediate postbloom fungicide application can be used in vineyards experiencing significant crop loss from grape berry moth on a yearly basis or in high value vinifera blocks.

In the Vineyard (6-19-14) – Andy Muza

Diseases

A POST BLOOM spray should be applied 10-14 days after the IMMEDIATE PREBLOOM spray. This spray is extremely important for the protection of developing fruit from infections due to phomopsis, black rot, downy and powdery mildew. **Do Not** extend this spray beyond 14 days from your last spray. Don't skimp now (i.e., use most effective fungicides, superb coverage) and you won't be disappointed later.

Talking with growers, many have applied 2-3 **prebloom** fungicide applications and your efforts are paying off. Vineyards that I checked this week had very little disease with only an occasional black rot leaf lesion found and small amounts of phomopsis shoot and leaf lesions observed. No downy mildew lesions were seen in any vineyards scouted.

Insects

Rose Chafer – still around in vineyard blocks that have had historical problems with this pest. However, blocks that I checked have received an insecticide application and only small numbers of beetles were found. Rose chafers should only be a threat for about another week. After bloom, as berries start to develop, rose chafer adults will move to other food sources. However, keep scouting potential problem areas through next week to determine if population levels are high enough to warrant an insecticide application.

Grape Berry Moth (GBM) – a total of only 4 GBM larvae (1st generation) were found in clusters near woodlines in 10 sites that were checked this week.

Currently (June 19) in the Lake Erie Grape Belt, GBM degree day accumulations for the 2nd generation ranged from a low of 263 at Portland (estimated wild grape bloom of 6/7) to a high of 581 at Sheridan (estimated wild grape bloom of 5/31). At the Ransomville site only 214 GBM degree days have been accumulated (estimated wild grape bloom of 6/9). If you have recorded **wild grape bloom** (50% bloom) at your sites then enter recorded dates into the model rather than the estimated dates for a more accurate determination of GBM development. Remember that 810 – 910 GBM degree days (depending on insecticides used) are the timings for a GBM spray according to the model. Track development on NEWA (http://newa.cornell.edu/index.php?page=berry-moth) and scout as we approach the 810 mark.

2014 Application Period - Erie County Farmland Preservation Program

The County of Erie is a proud participant in Pennsylvania's nationally recognized farmland preservation program. With the support of interested landowners, the program helps to permanently preserve farms for agricultural production. It helps to guarantee a future food supply and contributes to a healthier economy. It also assures that a way of life cherished by many Erie County residents will continue for generations to come.

This program is voluntary. In order to apply for the agricultural land conservation easement program, a landowner must complete and submit an application. Through the program, permanent easements are purchased. Landowners remain in possession of the land, but the easement limits subdivision, non-agricultural development and other uses inconsistent with commercial agriculture.

The Erie County Agricultural Land Preservation Board will be accepting applications from June 1, 2014 through September 30, 2014. Applications may be obtained from the Erie County Department of Planning, or from the department's website, www.eriecountyplanning.org.

Completed applications should be submitted to:

The Erie County Department of Planning
140 West 6th Street, Room 111
Erie, PA 16501

Biological Control in Hops

My name is Anna Long and I am a rising senior at Cornell University. I am currently interning at CLEREL and working on a project with biological pest management in hops, specifically concerning twospotted spider mites (TSSM). I have spent the last week and a half setting up a project in the hops looking at how quickly predatory mites move through the hopyard when they are released at the end of four different variety rows, Cascade, Willamette, Nugget, and Chinook. The species of predatory mites being used are *N. californicus* and *N. fallacis*. *N. californicus* is more commonly used in greenhouse settings, as it isn't known to move rapidly outdoors, whereas *N. fallcais* is widely used in the northwest hop growing regions at a large scale.

I have taken leaf samples from the hopyard and, as of yet, there have not been any TSSM observed. The predatory mites will be released at the beginning of next week and leaf samples will continue to be taken to track their movement and the number of TSSM in the hopyard throughout the growing season.

Twospotted spider mite adult female, nymph, and egg
Photo taken from Purdue Entomology

Adult female N. fallacis and eggs
Photo taken from NC State Entomolgy

2014 LERGP Coffee Pot Locations

May 7th	10:00am	Ann & Martin Schulze 2030 Old Coomer Rd. Burt NY 14028
May 14th	10:00am	John Mason 8603 W. Lake Rd. Lake City PA 16428
May 21st	10:00am	Leo Hans 10929 W Perrysburg Rd. Perrysburg NY 14129
May 28th	10:00am	Bob & Dawn Betts 7365 E Rte 20. Westfield, NY 14787
June 4th	10:00am 3:00pm	Clover Hill Farms- 10401 Sidehill Rd. North East, PA 16428 Brant Town Hall- Back entrance 1294 Brant North Collins Rd Brant NY 14027
June 11th	10:00am 3:00pm	The Winery at Marjim Manor, 7171 East Lake Rd.Appleton NY 14008 Chris Ortolano-2053 Lake Rd. Silver Creek NY 14136
June 18th	10:00am 3:00pm	Dan Sprague- 12435 Versailles Plank Rd. Irving NY 14081 Evan Schiedel/Roy Orton -10646 W Main Rd. Ripley NY 14775
June 25th	10:00am 3:00pm	Tom Tower 759 Lockport Rd. Youngstown NY 14174 Archer & Pratz Inc.- 9813 Lake Road, North East 16428
July 2rd	10:00am	Peter Loretto- 10854 Versailles Plank Rd. North Collins NY 14111
July 9th	10:00am	Kirk Hutchinson- 4720 W Main Rd. Fredonia NY 14063
July 16th	10:00am	Earl & Irene Blakely 183 Versailles Rd. Irving NY 14081
July 23th	10:00am	Fred Luke- 1755 Cemetery Rd. North East PA 16428
July 30th	10:00am	Carl Vilardo- Walker Rd. Westfield NY 14787

3:00pm meeting is an updated address-
afternoon meeting times have been updated to 3pm

Hops Production in the Lake Erie Region

When: Saturday, June 21, 2014
Time: 8 AM – 4 PM
Where: CLEREL
6592 West Main Rd.
Portland NY, 14769

Cost: $75 for members of the Northeast Hops Allianceand LERGP Members
$100.00 for non-members

Class size is limited; sign up early to ensure a spot in the class.

To register: Contact Kate at (716) 792-2800 x 201 or kjr45@cornell.edu

Participants will learn about commercial hops production; starting with classroom instruction on production practices from commercial hops growers from Pennsylvania and New York as well as Cornell University extension staff. The talks will provide an overview of hops production from before they are planted in the ground to the processing and marketing after harvest.

In the afternoon participants will head out to the CLEREL hop yard for a firsthand look at hop yard construction and a discussion with hops growers on the practices they use in their hop yards. A small scale harvester prototype will be available for viewing in the afternoon.

Topics to be covered

Planting a hop yard

Nutrition basics

Short trellis hops production

Processing – what to do with your hops after harvest

Marketing hops

Determining pricing for selling hops

Lake Erie Hops At CLEREL

2014 Lake Erie Regional Grape Program Enrollment

***This form is for NY Growers ONLY- PA Growers call 814-825-0900 to register**

Fees:

$70.00 $_____ **GRAPE Program** -Chautauqua county landowner
($45.00 program fee, $25.00 Chautauqua County Base Fee)

$65.00 $_____ **GRAPE Program**- Cattaraugus, Erie, NY or Niagara
(*$45.00 program fee, $20.00 County base fee)*

$100.00 $_____ **GRAPE Program** -Out of Program Region Resident

Program fees do not include 2014 Cornell Guidelines for Grapes

$25.00 $_____ 2014 Cornell Guidelines for Grapes

$25.00 $_____ Hardcopy mailing of Newsletters***

Total $_____ (Please make check payable to LERGP)

I am interested in the educational work of Cornell Cooperative Extension in Niagara, Chautauqua and Cattaraugus County. Any current recorded enrollee 18 years of age and older shall have voting and nominating privileges to hold office in the Association of their local county.

( ) I am 18 years of age or older and signed_____

( )New ( ) Renewal

Farm Name:_____

Name:_____ Spouse's Name: _____

Address:_____ City:_____

State:_____ Zip Code_____

Home phone:_____ Cell Phone :_____

Due to budget constraints, all correspondence will be conducted through e-mail. Please provide your e-mail address below. If you would like to receive hardcopies, mark the $25.00 additional fee line above and include with payment.

EMAIL ADDRESS_____

Please return form and payment to:

LERGP

6592 West Main Rd.

Portland NY 14769

Attn: Katie

Feel free to call w/ questions:

716-792-2800 Ext 201

Lake Erie Regional Grape Program

Cornell University

PENNSTATE College of Agricultural Sciences

Cornell University Cooperative Extension

LERGP Website Links of Interest:

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.
Please remember to RSVP for those events that require one!

Next Crop Update: June 25, 2014

Lake Erie Regional Grape Program Team Members:
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Kevin Martin, (kmm52@psu.edu) Business Management Educator, 716. 792.2800 ext. 205
Luke Haggerty, (llh85@cornell.edu) Grape Cultural Practices, 716.792.2800 ext. 204

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

Cornell University
Cooperative Extension

Lake Erie Regional Grape Program

PENNSTATE
College of Agricultural Sciences