

# LERGP Crop Update June 4, 2015

Crop Updates will be delivered on a weekly basis through the growing season.



Wednesday, June 10, 2015- Coffee Pot Meeting 10:00am- Peter Loretto, 10854 Versailles Plank Rd. North Collins NY 14111 3:00pm- Dave Nichols, 1906 Ridge Rd. Lewsiton NY 14092

Friday, June 26 & Saturday, June 27, 2015- Hops Conference at CLEREL *(see flyer and registration form)* 



Sunday, July 26, 2015- ISHS Shaulis Symposium at SUNY Fredonia

Monday, July 27-Wednesday, July 29- ISHS Conference at SUNY Fredonia

Use the included forms, go to our web-site or stop in the office to register.

\*\*Check the web-site for more upcoming events and meetings.



The Lake Erie Regional Grape Program



Cornell University

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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# 2015 Coffee Pot Meeting Schedule

- May 6- 10:00am-Dan Sprague- 12435 Versailles Rd. Irving NY 14081
- May 13- 10:00am- Phillip Baideme- 7935 Route 5, Westfield NY 14787
- May 20- 10:00am- CLEREL, 6592 West Main Rd. Portland NY 14769
- May 27- 10:00am-Nick Mobilia- Arrowhead Winery 12073 East Main Rd. North East PA 3:00pm-Evan Schiedel/Roy Orton- 10646 West Main Rd. Ripley NY 14775
- June 3- 10:00am- Bob & Dawn Betts- 7365 East Route 20, Westfield NY 14787 3:00pm- North East Lab-662 N Cemetery Rd. North East PA 16428
- June 10- 10:00am- Peter Loretto-10854 Versailles Plank Rd. North Collins NY 14111 3:00pm- Dave Nichols-1906 Ridge Rd. Lewiston NY 14092
- June 17- 10:00am-Tom Tower 759 Lockport Rd. Youngstown NY 14174 3:00pm-Leo Hans-10929 West Perrysburg Rd. Perrysburg NY 14129
- June 24- 10:00am- Kirk Hutchinson-4720 West Main Rd. Fredonia NY 14063 3:00pm- Brant Town Hall- 1294 Brant North Collins Rd. Brant NY 14027
- July 1- 10:00am-Ted Byham 9207 West Lake Rd. Lake City PA 16423 3:00pm-Alicia Munch-761 Bradley Rd. Hanover NY 14136
- July 8- 10:00am- Rosemary & Brenda Hayes- 6151 Route 5 Brocton NY 14716
- July 15- 10:00am-Szklenski Farms- 8601 Slade Rd. Harborcreek PA 16421
- July 22- 10:00am- Paul Bencal-2645 Albright Rd. Ransomville NY 14131

# The American Society for Enology and Viticulture-Eastern Section (ASEV-ES) is proud to announce Dr. Wayne Wilcox as the 2015 recipient of the ASEV-ES Outstanding Achievement Award.

Disease management is a critical component of viticulture east of the Rockies, and over his career Dr. Wilcox has delivered science-based guidelines that have allowed growers across the region to manage diseases more efficiently and sustainably. His in-depth knowledge of the biology of fungal pathogens has been key to improving the timing of management interventions over the course of the growing season.

A northern California native, Dr. Wilcox received his B.S. in Horticulture and M.S. and Ph.D. degrees in Plant Pathology, all from the University of California at Davis. Since 1984, he has been a professor at Cornell's New York State Agricultural Experiment Station in Geneva (Finger Lakes region), where he has led the grape pathology program for the past 21 years.

His programmatic focus is on the applied biology and practical, integrated management of the major fungal diseases of grapes, utilizing both viticultural and fungicidal tools. He has published nearly 100 research articles in scientific journals, in addition to numerous technical reports and popular articles in grower



newsletters and trade magazines, and is the senior editor of the forthcoming *2nd Edition of the Compendium of Grape Diseases, Disorders, and Pests*, an international publication of the American Phytopathological Society. He is also a co-author of the New York/Pennsylvania Pest Management Guidelines for Grapes, and his yearly "Grape Disease Control" newsletter provides grape growers throughout eastern North America with current, practical guidance for the growing season. He also organized and co-teaches a course in Grape Pest Management, in support of Cornell's undergraduate major in viticulture and enology. His extension activities have focused on educational programs for grape growers, vineyard managers, winery owners, and private and public sector agricultural advisers on the identification, biology, and management of infectious diseases. Dr. Wilcox's research program is integrated with his extension program, providing data for educational programs and opportunities to demonstrate specific concepts in the field.

His work is valued by the grape industry and colleagues alike for its impact, as demonstrated by his ASEV Best Viticulture Paper Award in 2012 for research that correlated powdery mildew severity with canopy density. In 2015, he received the award again for seminal work on the persistence of sulfur spray residues during ripening and wine making. In 2013, he received the Australian Journal of Grape and Wine Research Best Viticulture Paper Award for the optimization of a new technique to detect pathogens on grape berries before disease symptoms are visible.

Dr. Wilcox will receive his award at the 40<sup>th</sup> Annual ASEV-ES Conference in Dunkirk, NY July 23-25, 2015, where he will give a presentation on "Mold & Mildews, Spots & Rots: Grape Pathology in the East". For more information about the conference, visit <u>http://www.asev-es.org/</u>.

# Business Management

Kevin Martin Penn State University, LERGP, Business Management Educator

### Nitrogen Requirements & Costs Explained

Hate math? Check out the Nitrogen Worksheet on our webpage: http://lergp.cce.cornell.edu/submission.php?id=89&crumb=business%20management|business\_management

It is Nitrogen season and just as a reminder LERGP developed a Nitrogen worksheet a number of years ago. While, there is a small amount of variance based on conditions the assumptions in the nitrogen worksheet will give you a fairly accurate estimate of nitrogen requirements for vines that did not suffer significant winter injury. Nitrogen applications should be avoided where vines sustained significant winter injury. For the rest of the acreage, one simply needs to fill out the worksheet.

Soil organic matter can provide much of the nitrogen required by the vine. Uptake of available N through organic matter is slow and steady. Organic matter can provide as much as 95% - 100% of the N required by the vine. Each percentage of organic matter represents 20 pounds of N per acre. Concords require 50 pounds of actual N per year. Theoretically, just 2.5% organic matter represents 50 pounds per acre. However, Concord nitrogen needs are not always slow and steady. To help satisfy sporadic needs, organic matter should be between 3% and 5%.

Needs intensify around bloom. With 4% - 6% organic matter, along with healthy balanced soils, often no

nitrogen application is necessary. Without an accurate picture of overall soil health, a small maintenance dose around bloom is recommended. The worksheet shows this recommendation.

To determine the amount of fertilizer, it is necessary to determine the percent of actual N in the fertilizer. Urea is the most commonly used fertilizer; it contains 46% nitrogen.

Uptake efficiency is a critical way to control nitrogen application costs. Ineffective timing of nitrogen applications results in nearly a doubling in cost. Overall uptake efficiency is rather inefficient. Building up organic matter is a much more efficient method of supplying the vine with the majority of nitrogen needs. Uptake efficiency peaks around 17% of applied N. Early spring applications, depending on weather conditions, can drop below 10%.

Fertilizer costs vary between type. Currently urea prices are a bit out of wack, when compared to their long-term averages. Despite recent increases in Urea prices, it still remains the most cost-effective method of nitrogen application. Additives and blends typically add costs that are not justified by the potential cost savings that may or may not result. Broadcast applications of fertilizer typically cost large growers less than \$7 per acre. Multiple applications of different fertilizer types can be more cost effective than blending.



Soil test is a simple way to determine organic matter and accurately plan for a lowest possible cost fertilizer program.

# Nitrogen Requirements & Costs Worksheet for Concord Vineyards

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Cost per acre (Line 10 / 2000 x Line 9)	Cost per ton of fertilizer	Pounds of fertilizer per acre (line 7 / line 8)	Uptake efficiency of N: At budbreak .1; Two weeks pre bloom .17	Lbs of fertilizer/acre to apply assuming 100% uptake (line 5 / (line 6)	% N content of supplemental fertilizer	Lbs N/acre required from supplemental fertilizer (line 4 - Line 3)	Equivalent lbs N/acre required by Concord	Pounds of N/acre supplied by mineralization of OM (Line 1 x Line 2 x 100)	Pounds of N / % soil OM	Soil Organic Matter (OM): Values can be obtained from soil test reports	
13.43	600	45	17%	7.6	46%	3 <u>.</u> 5	50.0	70.0	20.0	3.50%	Sample (1)
114.71	650	353	10%	35.3	34%	12.0	50.0	38.0	20.0	1.90%	Sample (2)
195.65	600	652	10%	65.2	46%	30.0	50.0	20.0	20.0	1.00%	Sample (3)
									20.0		Your Vineyard
\$/acre	\$/ton	lbs F/acre	% Uptake	lbs F/acre	% N	lbs N/acre	lbs N/acre	lbs N acre	lbs N/acre	% OM	Units

# **Cultural Practices**

Luke Haggerty Viticulture Extension Associate Lake Erie Regional Grape Program

### **Bloom Prediction Update**

Cool weather this past week has slowed vine progression and pushed off some of the bloom predictions mentioned in last week's crop update. To clarify, here at CLEREL, we declare bloom when 50% of the grape florets have popped their caps and the long term average for bloom at CLEREL is June 14<sup>th</sup>. With the forecast calling for mid-70's this coming week (June 4-11) growth should pick up and move things along.



The cool weather delayed bloom and defiantly threw off using bio-indicators like locust bloom to predict bloom. Locust bloom occurred on or around Memorial Day (May 25). Ten days from May 25 would put bloom on June 5<sup>th</sup> (tomorrow) and it is obvious that will not happen. The 35 year average for April GDD has bloom occurring on 584 GDD +/- 32. As of today (June 4<sup>th</sup>) we have accrued ~450 GDD at CLEREL. If the weather stays relatively nice we can expect to accrue ~15-20 GDD a day, and at that rate we would expect bloom to occur June 10<sup>th</sup> or 11<sup>th</sup>. Dr. Bates uses Lake Erie heat units to make long term predictions and that model shows bloom to occurring on June 15<sup>th</sup>.

I have heard many reports of trace bloom on suckers in early sites. Meaning we are getting close to seeing trace bloom in the canopy. Immediate pre-bloom sprays should be applied as soon as possible if they are not on already.

# Weather

	Lake Erie Gra	pe Region NEWA	Weather Data		
Location	Date	Avg. temp F (May 1-30)	Precip.Past 7 days (in)	Precip. May total	Total Apr GDD
North East Lab, PA	6/3/15	62	3.08	5.27	465
Harborcreek, PA	6/3/15	63	2.34	4.31	486
North East Escarpment	6/3/15	62	3.03	5.18	468
Ripley	6/3/15	63	2.69	4.11	481
Portland Route 5	6/3/15	62	2.4	4.28	443
Portland CLEREL	6/3/15	NA	NA	NA	426
Portland Escarpment	6/3/15	62	2.05	3.10	472
Dunkirk	6/3/15	61	2.19	3.61	416
Silver Creek	6/3/15	61	2.51	3.96	402
Sheridan	6/3/15	63	NA	NA	484
Versailles	6/3/15	62	2.51	NA	423
Appleton	6/3/15	59	1.46	2.27	353
Somerset	6/3/15	62	1.59	2.56	427
Appleton South	6/3/15	61	1.94	2.68	426
Lockport	6/3/15	62	0.81	0.74	416

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Note: All Weather data reported as of 6/3/2015. NA=Sensor Malfunction

DATE/YEAR	HIGH	LOW	DAILY PRECIP	GDDs	TOTAL APRIL GDDs	TOTAL JAN GDDs
Week of 5/21/2015	68.7	52.30	0.04	77.5	281.8	281.8
Week of 5/28/2015	71.7	54.90	0.00	95	412.5	412.5
Week of 6/4/2015	76.6	53.30	0.19	104.5	517	517
Average(from 1964)	72.1	53.10	0.14	89.3	357.5	382.5
June Precip- Wk 1=1.32" Total Precip: May = 3.0"						

### **IPM Update**

IPM

**Grape Rootworm** – scouting of vineyards across the belt found no grape rootworm adults this past week. But we expect to see them start their emergence soon.

**Rose chafer** – reports at the Coffee Pot meeting at the North East Lab were negative for major infestations of rose chafer although there was some talk about low numbers being reported in vineyards around North East.

**Banded grape bug** – as we move closer to bloom we should see the change over from nymph (the damaging stage) to adult (predaceous on other insects, so the good stage). If you have areas where BGB has been a problem in the past and you have not scouted it yet, it may be to your benefit to give it a look. The threshold for BGB is very low at 1 nymph per 10 shoots.

**Grape berry moth** – Jody Timer at the North East Lab has reported finding 2 – 3 times as many males in pheromone traps this spring compared to the past couple of years. What does this mean? It means that, despite our extreme winter lows, GBM appears to have overwintered very well. So if you had problem areas last year, make sure you continue to monitor and spray these areas when necessary using the GBM model on NEWA (<u>http://newa.cornell.edu</u>) What it does not mean is that you need to add insecticide to the immediate pre-bloom or post-bloom spray. According to Jody at yesterday's Coffee Pot meeting, if you are targeting the overwintering generation (the one indicated by early pheromone trap catches) you should have timed your insecticides for the wild grape bloom. And research has shown the immediate post bloom application to have very little, if any, effect on the amount of grape berry moth damage at harvest.

**Diseases** – While most vineyards look very clean at the moment, the grape disease models on NEWA shows the area had significant infection periods for Phomopsis, black rot, downy mildew and powdery mildew over the weekend (May 29 – June 1). Even with the cooler temperatures experienced over this timeframe, the 43 – 48 hours of continual leaf wetness we experienced were more than enough to provide conditions for significant infections to occur.

**Weeds** – hopefully most vineyards have had a good pre -emergent herbicide program applied, especially in vineyards with trunk damage where suckers need to be saved. I have had many questions on what to use in these vineyards to kill the weeds but save the suckers. The best answer I have is to get the suckers tied up and use a shielded sprayer to limit herbicide contact with the sucker. Hitting the bottom foot or so of the sucker with a post emergent herbicide can damage it enough that it will no longer be useful as a replacement for injured trunks.



# 2015 Hops Production in the Lake Erie Region Conference

June 26 - 27, 2015

9 AM - 4 PM Cornell Lake Erie Research and Extension Center Meeting Room and Hop Yards 6592 West Main Road, Portland, NY 14769

### **Featured Speakers**

Mike Roy - Roy Farms Inc., Moxee Washington\* Mary Gardiner - Ohio State University David Spann - Chautauqua Soil & Water Beth Reed - Small Business Development Center Steve Miller - Hops Educator, Cornell CE Tim Weigle - NYS IPM Program & LERGP and many more to come...

\*Sponsored by Ommegang Brewery

Single Day Registration:	\$75
Two-day registration:	\$125
Beer & BBQ Dinner June 26:	\$50

### To Register:

Contact Kate at (716) 792-2800 x202 or kjr45@cornell.edu For credits cards please our website at: http://lergp.cce.cornell.edu

or use form on back



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







### Friday June 26 -

**Focus on Getting Into Hops Production** Classroom and in-field opportunities to learn first hand the hows and whys of hops production

### Saturday June 27 -

**Becoming profitable with Hops Production** Now that they are in the ground and the trellis is up, learn about some of the techniques that will help you to become profitable with your hops production. Classroom and in-field opportunities

# 2015 Hops Production in the Lake Erie Region Conference

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## **Registration Form**

Farm/Business Name			
Name of Attendee (s) _			
_			
City	State	Zip	
Email	Phone		
Friday registration - \$75 X	number attending		=
Saturday registration - \$75	X number attending		=
Friday and Saturday registr	ation - \$125 X numbe	r attending	=
Beer and BBQ Dinner on F	riday June 26 - \$50 nu	umber 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

# THE INTERNATIONAL SOCIETY FOR HORTICULTURAL SCIENCE (ISHS) Presents

### "<u>II International Workshop on Vineyard Mechanization and</u> <u>Grape and Wine Quality</u>"

July 26- July 29, 2015 Fredonia, New York, USA

Sponsored by the ISHS working group on Vineyard Mechanization and Vine Berry Fruits

In collaboration with Cornell Lake Erie Research & Extension Laboratory Portland, NY and Cornell University New York State Horticultural Society New York State Agricultural Experiment Station, Geneva





II International Workshop on Vineyard Mechanization and Grape and Wine Quality

### Invitation

On behalf of the ISHS Fruit Section Working Group on Vineyard Mechanization and Vine Berry Fruits, we invite you to an International Workshop on Vineyard Mechanization and Grape and Wine Quality to be held in Fredonia, New York, USA.

The <u>II International Workshop on Vineyard Mechanization and Grape and Wine Quality</u> will be held from Sunday, July 26 to Wednesday, July 29<sup>th</sup> 2015 at SUNY Fredonia. The workshop will kick off on Sunday with a Shaulis Symposium focused on grapevine physiology and mechanized grapevine production. Monday will be a full day technical and winery tour to the Cornell Lake Erie Research and Extension Laboratory and Lake Erie Region wineries. This will be followed by a day and a half of technical presentations and posters on: precision viticulture, sensing technologies, variable rate management, fruit quality, and economics.

### **Primary Topics of the Symposium**

- Horticulture: Grapevine Physiology and Mechanized Production
- Engineering: Mechanized Tools for Vineyard Operations
- Sensing Technology: Spatial Vineyard Measurement
- Variable Rate Management: Zonal Application for Yield and Quality
- Fruit Quality and Economics: Impact of Mechanized Systems

### Sponsors

# E. & J. Gallo Winery

If you would like to sponsor this event, please call Katie at 716-792-2800 ext 201 for more information.

For detailed information and registration for this event, please use the following link: http://events.cals.cornell.edu/ishs

### 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.





### Lake Erie Regional Grape Program Team Members:

Andy Muza, (ajm4@psu.edu)Extension Educator, Erie County, PA Extension, 814.825.0900 Tim Weigle,(thw4@cornell.edu) Grape IPM Extension Associate, NYSIPM, 716.792.2800 ext. 203 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

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



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