

LERGP Crop Update

*** March 3, 2016 ***



The Lake Erie Regional Grape Program



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.

2016 Agenda

LERGP Winter Grape Grower Conference

2016 Lake Erie Regional Grape Program Growers' Conference
March 22, 2016
Williams Center
SUNY at Fredonia Campus

Descriptions are provided for agenda items where pesticide recertification credits are being requested

Agenda

- | | |
|-------------------------|--|
| 6:30 AM | Tradeshow set up begins |
| 7:00 AM | Registration and Tradeshow open |
| 7:50 AM | Welcome |
| 8:00 - 8:30 AM | Overview of SCRI Project <i>Dr. Terry Bates, LERGP, Cornell University</i> |
| 8:30 – 9:00 AM | Crop Insurance Update <i>Kevin Martin – LERGP- Penn State University</i> |
| 9:00 – 10:00 AM | Grape Berry Moth from A to Z <i>Dr. Greg Loeb, Dept of Entomology, NYSAES, Cornell University</i> Dr. Loeb will cover the 30 years of research that have brought grape berry moth management to where it is today. His talk will cover what we know about the grape berry moth life cycle and how we can use that information to our advantage. He will also cover how this research information was used to develop the Phenology-based growing degree day model for grape berry moth found on the Network for Environment and Weather Applications website and how it can be used to effectively manage grape berry moth in the vineyard. |
| 10:00 – 10:30 AM | Break |
| 10:30 – 11:00 AM | Worker Protection Standard <i>Jim Harvey, Pennsylvania Office of Rural Health, Penn State University</i> Jim will provide information to help grape growers gain an understanding of, and how to comply with, the Environmental Protection Agency's Worker Protection Standard (WPS). |
| 11:00 – 11:30 AM | Control of Perennial and Invasive Weeds <i>Brian Eshenaur, NYS IPM Program, Cornell University</i> Brian will provide his weed management expertise developed through his years of working in the field of ornamentals to help growers with identification of some of the more common perennial, and invasive, weeds that are becoming harder to control. He will also provide some IPM management strategies to use in developing with hard to control perennial and invasive weeds. |
| 11:30 – Noon | Understanding pesticide modes of action |

Andy Muza, LERGP, Penn State University

Andy will give an overview of what is meant by the mode of action of a pesticide, the importance of knowing the mode of action and how to use this information to implement a resistance management strategy. Andy will also provide an example of how to rotate modes of actions when choosing insecticides for use against grape berry moth in a typical growing season.

Noon- 1:30 PM Lunch and Visit Tradeshow

Breakout sessions will be held from 1:30 – 2:30 PM and 2:45 to 3:45 PM

Breakout Session 1

1:30 – 2:30 PM Frost Protection and Delaying Budbreak
Imed Dami, Ohio State University

2:45 – 3:45 PM Cover Crops and EQUIP
Luke Haggerty, LERGP, Cornell University

Breakout Session 2

1:30 – 2:00 PM Labor Efficiency
Speaker to Be Determined

2:00 – 2:30 PM Health Insurance for Employers
Speaker to be Determined

2:45 – 3:15 PM Labor Efficiency
Speaker to be Determined

3:15 – 3:45 PM Health Insurance for Individuals
Speaker to be Determined

Breakout Session 3

1:30 – 2:00 PM Invasive Species in the Lake Erie Region

Jody Timer, Penn State University

Jody will present her research with invasive species and how they are currently affecting, and may affect in the future, grape growing in the Lake Erie. Jody will share her work with Brown Marmorated Stink Bug and Spotted Wing Drosophila and give an update on the Spotted Laternfly.

2:00 – 2:30 PM Disease Management Update

Bryan Hed, Penn State University

Mr. Hed will provide growers an overview of where the Lake Erie region stands in the way of disease potential in 2016 for the four main diseases of grapes; powdery mildew, downy mildew, black rot and Phomopsis. Bryan will also provide a look at what new, and existing, materials are available for use in a vineyard disease management strategy.

2:45 – 3:15 PM Grower Experience Using NDVI
Luke Haggerty, LERGP, Cornell University
Thom Betts, Betts Vineyard, Westfield, NY

3:40 PM Adjourn

Methods Used To Ensure Only Attendees Receive Recertification Credits

Participants attending the meeting will sign a roster prior to entering the meeting room where talks for credits will be made. No one will receive a recertification certificate until the conclusion of the afternoon session.

LAKE ERIE REGIONAL GRAPE PROGRAM
2016 GRAPE GROWERS' CONFERENCE REGISTRATION FORM

to be held at SUNY Fredonia Williams Center
on Tuesday, March 22, 2016

Deadline for registration is Friday, March 4, 2016.

Name (1st attendee) _____ \$ _____

Farm Name _____

Address, City, State, Zip Code _____

Phone _____ E-mail _____

Are you enrolled in Lake Erie Regional Grape Program (LERGP)? Yes _____ No _____

| REGISTRATION FEES | |
|---------------------------------------|----------|
| LERGP Member 1 st attendee | \$ 50.00 |
| Additional attendee on same farm | \$ 40.00 |
| Non- member | \$100.00 |

Additional Attendees:

| | |
|--|----|
| | \$ |
| | \$ |
| | \$ |
| | \$ |
| | \$ |

*Please add a **\$25.00 late fee** for each reservation made after March 4, 2016

TOTAL \$ _____

Please make check payable to **LERGP (Lake Erie Regional Grape Program)** and mail to:
(US funds only)

Kate Robinson
LERGP
6592 W Main Rd
Portland NY 14769

Name _____ NY DEC/PA PDA NUMBER _____

Name _____ NY DEC/PA PDA NUMBER _____

Name _____ NY DEC/PA PDA NUMBER _____

| <u>Date Ck. Rec'd</u> | <u>Amount</u> |
|-----------------------|---------------|
| | |

Call Kate at 716-792-2800 ext 202 with any questions.

Southern Tier Agricultural Enhancement Grants: Update

Southern Tier Agricultural Grants are coming in fast. A lot of counties, crops and support infrastructure are involved in this project. All indications show that, despite very high levels of initial interest, there is a good possibility some funding will be available for a second round of funding. The application period is between **July 11th** and September 19th. **Growers interested in applying for that grant should have finalized business plans between now and July 11th.** It will be more difficult for both the grower and the consultant to complete the business plan and the application during the growing season and into harvest. I can only attribute the lack of participation to the effort required to timely submit a project. Using time that you have now is the best way for growers that own land in Cattaraugus and Chautauqua County to get virtually free funding.

There are a number of barriers to qualifying as the request for applications (RFA) specifically defines how NYS will define farmers and how farmers can document their eligibility. Much of that information was discussed in the crop update last week and can be found at agriculture.ny.gov.

Extension has been assisting farmers and the LERGP program has been assisting vineyards, wineries and hops growers with a portion of the application. The application must include a written business plan or an environmental plan. Extension can provide advisement, editing and approval of written business plans.

Applications must also include documentation of AEM. For grape growers, this means completion of the vine balance workbook sometime in the last three years. If you do not have that documentation or need to revise your workbook, please visit vinebalance.com. Upon completion Tim Weigle can verify your workbook and score sheet for documentation.

Below you can find an outline for what a sample business plan looks like. This business plan includes the required elements as detailed by the RFA.

- **Heading**
 - Logo
 - Farm Name
 - Farm Address
- **Description of Farm Business**
 - Farm Ownership
 - Farm Size
 - Crops in Production
 - Other Related activities

- **Assessment of Farm Profitability**

- Graph illustrates requirements efficiently, but a graph is optional
 - If using a schedule F:
 - Line 9
 - Line 33
 - Line 34
 - Three years history
 - Two Year Forecast
- Narrative
 - Past successes and challenges
 - Future successes and challenges

- **Description of Strategies Identified To Improve Farm Profitability**

- Focus on broad stroke strategies, no more than four
- Labor, Yield or Mechanization are examples
- General description of executing strategies should be included

- **Description of Project & Evaluation as to how this project will address an identified strategy**

- How does the project relate to one or more strategies?
- A machine pruner relates to mechanization
- Drainage relates to yield increases

- **Evaluating Impact of Project on Profitability**

- Why do you think the strategy will increase net income?
- Positive net income: What year does the project yield net income. How much? Do you expect net income to grow more significantly than inflation in some or all years?
- Net Present Value of the project
- $NPV = \sum \{ \text{Net Period Cash Flow} / (1+R)^T \} - \text{Initial Investment}$
- In Excel: Column A is the date. Column B is the Year number. Column C is the net income for that particular year. Cell C1 is the discount rate. Column E contains both the formula as well as the Net present value of this hypothetical project.

Once you have completed the outline of your business plan, please contact me for review. I can also assist, in most cases, with the evaluation of project on profitability. For projects related to vineyards, wineries and hops I'll be able to verify your assumptions. Once we have defined your assumptions I can also help calculate Net Present Value if you need assistance.

| | A | B | C | D | E | F |
|----|---------------|----|--------|---------|-------------------|---|
| 1 | Discount Rate | | 5% | | | |
| 2 | 2016 | 1 | -50000 | NPV = | \$101,808.72 | |
| 3 | 2017 | 2 | -50000 | Formula | "=NPV(C1,C2:C21)" | |
| 4 | 2018 | 3 | 0 | | | |
| 5 | 2019 | 4 | 20000 | | | |
| 6 | 2020 | 5 | 20000 | | | |
| 7 | 2021 | 6 | 20000 | | | |
| 8 | 2022 | 7 | 20000 | | | |
| 9 | 2023 | 8 | 20000 | | | |
| 10 | 2024 | 9 | 20000 | | | |
| 11 | 2025 | 10 | 20000 | | | |
| 12 | 2026 | 11 | 20000 | | | |
| 13 | 2027 | 12 | 20000 | | | |
| 14 | 2028 | 13 | 20000 | | | |
| 15 | 2029 | 14 | 20000 | | | |
| 16 | 2030 | 15 | 20000 | | | |
| 17 | 2031 | 16 | 20000 | | | |
| 18 | 2032 | 17 | 20000 | | | |
| 19 | 2033 | 18 | 20000 | | | |
| 20 | 2034 | 19 | 20000 | | | |
| 21 | 2035 | 20 | 20000 | | | |

Low Temps and Ice Cover

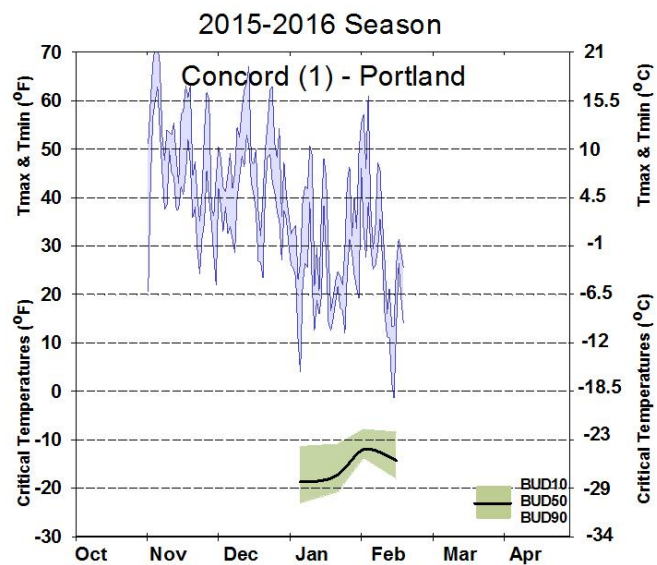
As we progress into March most growers are focusing on finishing up pruning and preparing for the warmer weather ahead. The ten day forecast is projecting highs in the upper 50's next week making for good pruning conditions. I have not heard any reports of bleeding vines which lets us assume the vines are still in a dormant state. Although temperatures dipped below zero two weeks ago, there are no indications of bud damage.

NEWA Stations: A great resource to gain access to all weather information throughout the region is the NEWA website, <http://newa.cornell.edu>. To further the effectiveness of this program we are planning on adding 2-3 more stations to the belt. You may have noticed missing information from a few locations, these stations were sent off to be recalibrated. They should be back on line soon.

Bud Hardiness: The fifth batch of bud samples were sent off Monday (Feb. 29th) and we are expecting to see results by Friday (Mar. 4th). The graph shows the low spike from the cold event we received two weeks ago, which stayed clear of the damage threshold. To follow this information go to:

<http://grapesandwine.cals.cornell.edu/extension/bud-hardiness-data/>

Lake Erie Ice Cover: The warm front that brought rain and 40 degree temps chewed up most all of the ice on Lake Erie. As of March 3rd there is only 1.3% ice cover which decreased from 61% on February 17th. <http://www.glerl.noaa.gov/res/glcfs/glcfs-ice.php?lake=e&type=N&hr=00>



NEWA – Not Just for the Growing Season

More and more growers are starting to use the NEWA weather and pest model resources, <http://newa.cornell.edu>, to help in the timing of fungicide and insecticide applications during the growing season. The usefulness of NEWA does not end when the sprayer is put away. The weather data collected by NEWA is stored so you can access weather data from the day the weather station was installed and hooked into NEWA. Any of this weather data can then be used in the models for grape berry moth, powdery mildew, black rot, Phomopsis and downy mildew.

Why is this important? This access to historical data allows NEWA to be used as a diagnostic tool to assist in determining why a pest outbreak occurred. Using the Pest Forecast Menu on the NEWA homepage (Figure 1) enables you to choose grape Forecast models which will take you to a page where you will be able to choose from a menu of the pest models (Figure 2), the weather station you are interested in, (Figure 3) and the date you would like the pest information for. Going back through the season can help to pinpoint where infection periods were particularly intense for the disease which showed up at harvest. Figure 4 shows the results of looking back to conditions on June 15, 2015 for the Portland station on NEWA. Combining infection information with rainfall data (amount and intensity), scouting records and spray records will allow you to better assess why a problem may have occurred. To get an idea of what has happened up to the date you choose for a particular season you can also access the Grape Infection Events Log at the bottom of the grape forecast model page by using the Show grape infection events log button (Figure 5). This mining of archived data can be used for the disease and grape berry models found on NEWA. If you have never used the archive feature of NEWA I would encourage you to get on line and give it a try. I have found it very useful in developing a database of infection periods, or to chart growing degree day accumulations for grape berry moth. This makes it much easier to get a handle on what might have gone wrong, or to prove that your spray program was on target and not excessive.

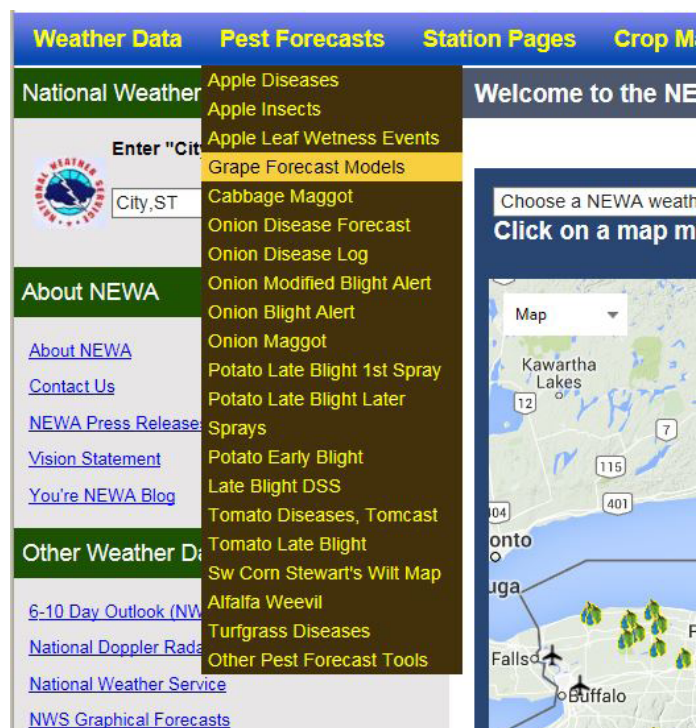


Figure 1

Weather Data Pest Forecasts Station Pages

Grape Forecast Models

NEWA Grape Forecast Models

Select a disease or insect:

Select disease or insect

Grape Diseases
Downy Mildew (DMCast)
Grape Berry Moth
Select station

Date of Interest:

3/2/2016

Calculate




Figure 2

Weather Data Pest Forecasts Station Pages

Grape Forecast Models

NEWA Grape Forecast Models

Select a disease or insect:

Select disease or insect

Select station

Accord
Albany
Albion
Appleton, North
Arkport (Mahany)
Aurora
Baldwinsville
Baldwinsville (Abbott)
Bergen
Binghamton
Branchport
Bridgehampton
Brookhaven
Brookhaven Hamlet
Buffalo
Butler (Tree Crisp)
Castleton
Ceres
Chazy (Grower)
Chazy (Miner)
Clifton Park
Clintondale (WG Minard)
Crown Point
Cutchogue
Cutchogue (New Suffolk)

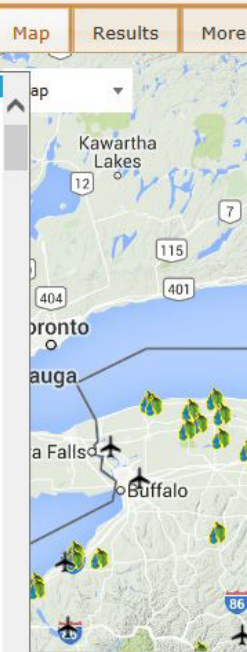


Figure 3

Weather Data Pest Forecasts Station Pages Crop Management Crop Pages About Weather Stations

Grape Forecast Models

NEWA Grape Forecast Models

Select a disease or insect:

Grape Diseases

Weather Station:

Portland

Ending Date:

06/15/2015

Calculate

Map Results More info

Grape Disease Infection Events for Portland

| | Past | Past | Current | Ensuing 5 Days | | | | |
|-----------------------|--------|----------|----------|----------------|--------|----------|--------|--------|
| | Jun 13 | Jun 14 | Jun 15 | Jun 16 | Jun 17 | Jun 18 | Jun 19 | Jun 20 |
| Phomopsis | Yes | Combined | Combined | Yes | No | Combined | Yes | No |
| Powdery Mildew | - | - | - | - | - | - | - | - |
| Black Rot | Yes | Combined | Combined | Yes | No | No | No | No |

Phomopsis - calculates when weather conditions may allow spores to infect susceptible tissue.
Powdery Mildew - runs from bud break until early bloom; calculates when weather conditions may allow overwintered, primary spores (ascospores) to infect susceptible tissue.
Black Rot - calculates when weather conditions may allow spores to infect susceptible tissue.

Phenological stage: Immediate pre-bloom

Figure 4

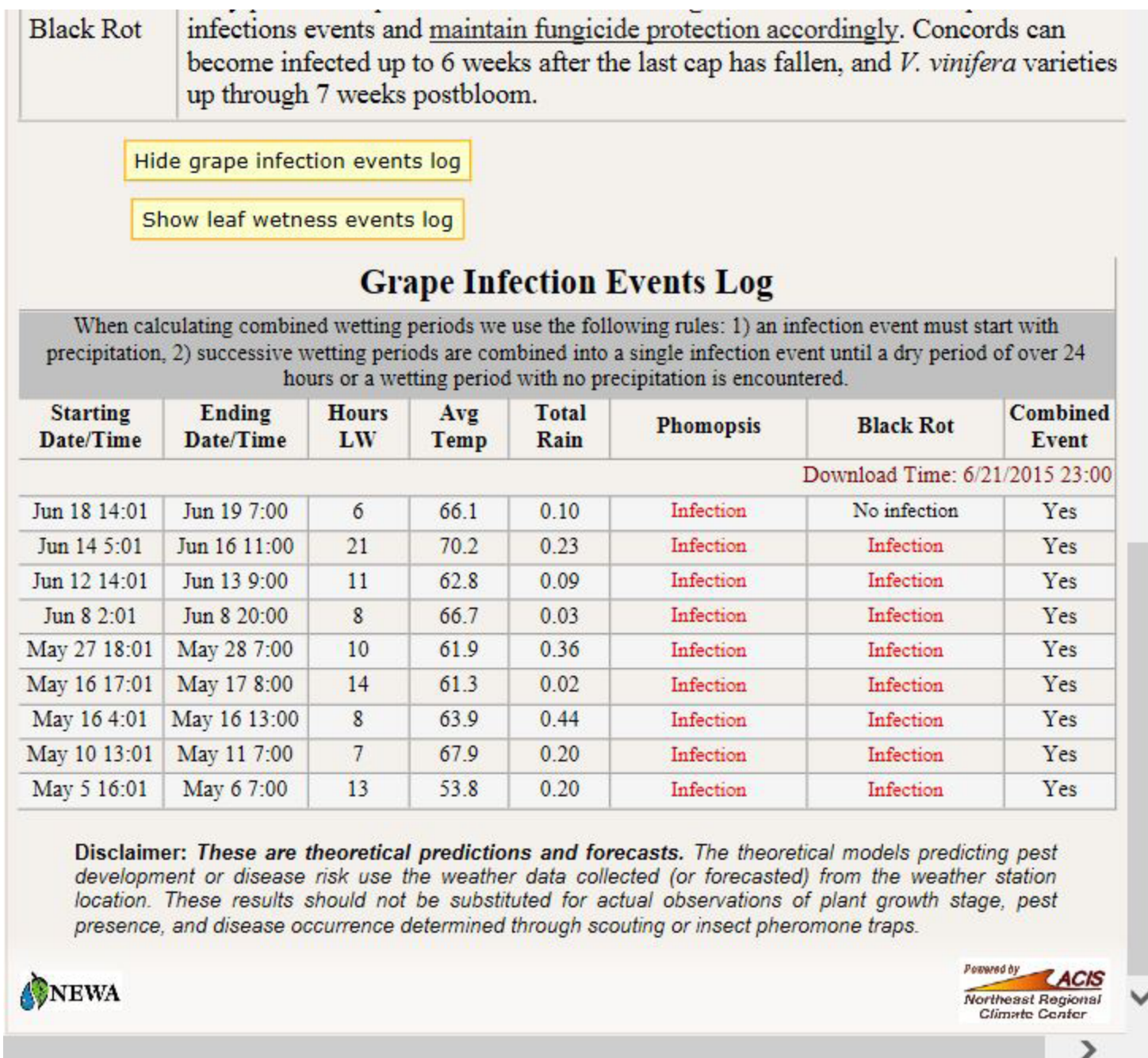
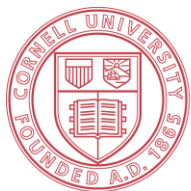


Figure 5



Cornell University
Cooperative Extension

**Cornell and Penn State Cooperative
Extension**

Lake Erie Regional Grape Program

6592 West Main Rd, Portland, NY 14769 716-792-2800
662 N. Cemetery Road, North East, PA 16428-2902 814-725-4601
850 East Gore Road, Erie, PA 16509-3798 814-825-0900

“CORE” Pesticide Training and Pesticide Applicators License Exam
April 5, 2016
Cornell Lake Erie Research and Extension Laboratory (CLEREL)
6592 West Main Road
Portland, NY 14769

Space is limited ---Pre-registration is required for both sessions

CORE TRAINING

WHEN: 9 AM to 12:15 PM
WHERE: CLEREL Meeting room
COST: \$15

3.0 Pesticide recertification credits in the CORE category have been applied for.

The CORE training session is also designed as a review prior to taking the Commercial or Private Pesticide Applicator exam but is not required prior to taking the exam.

Preregistration for the training using the enclosed course registration form is required by **March 30, 2016**.

Questions on the training session should be directed to Kate at (716) 792-2800 ext 201

PRIVATE AND COMMERCIAL NYS PESTICIDE EXAMINATIONS

WHEN: 1 PM
WHERE: CLEREL Meeting room
COST: \$100
REGISTRATION: **NYS Department of Environmental Conservation (DEC) requires you to register for entrance to the exam session with the Buffalo DEC office at (716) 851-7220.**

DEADLINE for registration to take the test is **March 30, 2016. To register, call the DEC at (716) 851-7220. You will then be sent an exam application form and test instructions by the DEC.**

Any questions about your eligibility to take an exam or the status of your current certification should be directed to the Buffalo DEC office at (716) 851-7220.

Commercial Applicators: You will need the “Core Manual” and the category manual for the area(s) in which you will be certifying.

Private Applicators: You will need to get the “Core Manual” plus the private category manual for the area in which you will be certifying.

CORE and category training manuals are available through the Cornell Store by using the attached order form or by calling (800) 624-4080 or the web-site link: <http://store.cornell.edu/c-876-manuals.aspx>

Questions on Pesticide Examinations should be directed to the NYS DEC at (716) 851-7220.

2016 CORE PESTICIDE TRAINING REGISTRATION FORM

Tuesday, April 5, 2016

Space is limited – pre-registration is required.

To register for the training, fill out and return registration form to:

ATTN: Kate
Lake Erie Regional Grape Program
CLEREL
6592 West Main Road
Portland, NY 14769

Name(s) _____

Address _____

Phone _____

Number attending _____

Registration and payment by Thursday, March 30, 2016 (\$15 per person) _____

Make Checks Payable to: Lake Erie Regional Grape Program

IMPORTANT: This registration is for the CORE training session only.

If you wish to take the exam for a NYS DEC Pesticide Applicators License you must contact the Buffalo office of the NYS DEC by calling Mike Nierenberg or Shaun Conrad at (716) 851-7220 no later than March 28, 2016 to provide ample time for them to provide you with an exam application form and test instructions.

Crop Update Password will be changing next week.
If you have not yet renewed, please do so.

If you have not yet enrolled, please do so ASAP so you don't miss out on important information.

Please call Katie at 716-792-2800 or e-mail kjr45@cornell.edu

Brookside Society
of Professional Consultants

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Agricultural-Environmental

7653 Dutton Rd.
Harborcreek, PA 16421

Jared Mosier
Phone: (301) 512-3977
jmosier1@gmail.com

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-cor>

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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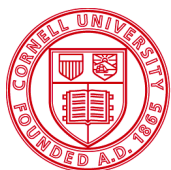
This publication may contain pesticide recommendations. Changes in pesticide regulations occur constantly, and human errors are still possible. Some materials mentioned may not be registered in all states, may no longer be available, and some uses may no longer be legal. Questions concerning the legality and/or registration status for pesticide use should be directed to the appropriate extension agent or state regulatory agency. Read the label before applying any pesticide. Cornell and Penn State Cooperative Extensions, and their employees, assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsements of products are made or implied.

Cornell University Cooperative Extension provides equal program and employment opportunities.

Contact the Lake Erie Regional Grape Program if you have any special needs such as visual, hearing or mobility impairments.

CCE does not endorse or recommend any specific product or service.

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



Cornell University
Cooperative Extension



College of
Agricultural
Sciences