



LAKE ERIE REGIONAL GRAPE PROGRAM

Electronic Crop Update for April 19, 2012

Go to <http://lergp.cce.cornell.edu/EventsCalendar.htm> for a detailed calendar of events including maps via Google calendar! Scroll to the bottom of the page for Google calendar and click on the event. Please remember to RSVP for those events that require one! UPCOMING EVENTS are also listed toward the bottom of this Electronic Update.

Please remember to let us know if you have changed or are in the process of changing your email address so we can keep the Electronic Crop Update coming to your inbox!

[Please email Edith at: emb35@cornell.edu.](mailto:emb35@cornell.edu)

WEATHER FACTS: Edith Byrne

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DATE / YEAR	HIGH	LOW	DAILY PRECIP.	GDDS	TOTAL APRIL GDDS 4/18	TOTAL JANUARY GDDS 4/18
April 18, 2012	53	30	0.00	0	21	162.5
April 18, 2011	39	32	Trace	0	32.5	41
April 18, 2010	48	36	0.18	0	121	124.5
April 18, 2009	57	41	0.00	0	17	29.5
April 18, 2008	71	50	0.00	10.5	54	76
April 18, 2007	45	38	0.00	0	13.5	62.5
April 18, 2006	67	43	0.00	5	54	73.5
April 18, 2005	68	42	0.00	5	28	53.5
April 18, 1998	51	37	0.00	0	39	128
April 18, 1991	60	43	0.00	1.5	74	102
AVERAGE	59.7	39.1	0.06	3.33	37.37	62.50

This year compared to JAN. AVERAGE: Ahead 30.03 / APR. AVERAGE: Behind 4.92

This year compared to 2011 JAN. AVERAGE: Ahead 36.48 / APR. AVERAGE: Behind 3.45

Precipitation Total thru 4/18 = 0.73" / 2012 Total Precipitation through 4/18 = 9.21"

Precipitation Total thru 4/18/11 = 9.87" / 2011 Total Precipitation through 4/18 = 19.22"

Precipitation Total thru 4/18/10 = 1.30" / 2010 Total Precipitation through 4/18 = 6.91"

Here Is A Brief Update From North East PA.

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Weather: April has been colder than normal with no growing degree day (gdd) accumulation for the first 13 days of the month. We currently have 34 gdds as of April 18, almost entirely a result of the very warm weather last Sunday and Monday. Here by the lake we have recorded below freezing temperatures eight times since bud-swell began in the fourth week of March, and this has left many vineyards with severe damage. Primary bud damage ranges from nearly 100% to nearly 0; very site specific due to proximity to the lake, but also topographical features that allow cold air to collect OR flow away. In the Harborcreek and North East areas of Erie County PA, the hardest hit vineyards I've seen were in frost pockets between routes 20 and 5.

The short term Skybit forecast, over the next 3 days, calls for lows in the mid 40s and highs in the mid to upper 60s, with a sharp cool down on Saturday. However, there are no below freezing temperatures in the long term Accuweather forecast; nothing too exciting one way or another in terms of high and low temperatures as we inch our way toward (past?) that last frost date. There is a chance for rainfall on Saturday and Monday, April 21 and 23, which *may* establish our first Phomopsis infection periods for the season.

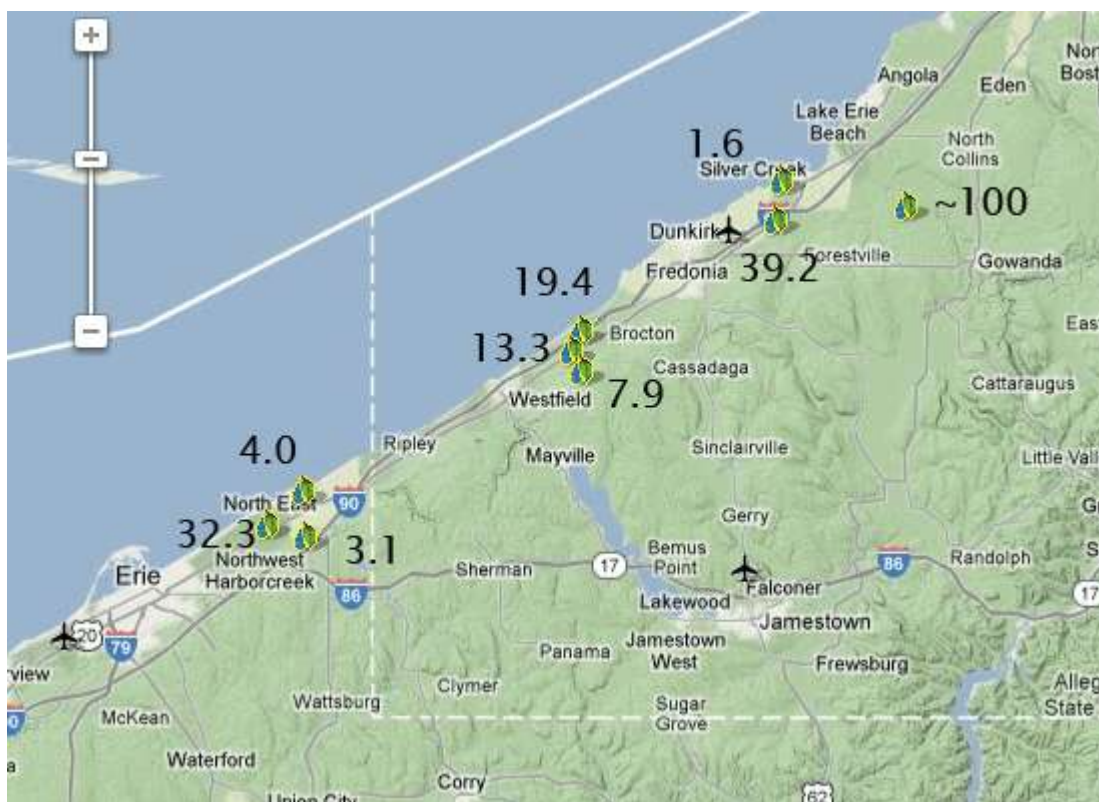
Phenology and Disease: Here at the North East lab we recorded 50 % budburst in Concord on April 15, quickly followed by 90-100% budburst the next day. This comes a full 25 days ahead of last year (May 10), but almost dead even with 2010. Currently, shoots are at 0.5 to 1.5 inches here by the lake, but 1-2.5 inches in length farther inland against the escarpment (in some vineyards). In 2010, we reached 3-6" shoots (here by the lake) by May 5, signaling the stage when an early mancozeb or captan spray would be appropriate for control of Phomopsis cane and leaf spot. For reference, your index and ring fingers are likely 3 or more inches in length. You remember that it is at this stage that inflorescences and internodes 1-3 become exposed and are therefore vulnerable to fungal attack by Phomopsis *during periods of rainfall*. This year, that spray is *highly* recommended as there is abundant inoculum on older wood and year-old canes in the majority of Lake Erie vineyards. According to the Accuweather forecast, after Friday, April 20, gdd accumulations and shoot growth will slow to a crawl until late next week. Primary buds in vineyards farther inland are likely to move to the 3-6" stage earlier than vineyards along the lake. But my travels yesterday revealed that shoot length at this early stage in the season, can be very site/vineyard specific. Only regular scouting of your blocks will tell.

Bud Damage Assessments in the Lake Erie Region – Take Two

We completed a second look at the 9-sites vineyards in the Lake Erie region to rate the damage from the frequent freeze events that have occurred starting on March 27, 2012. The results presented below represent the accumulated bud damage from those events. The warmer temperatures of the past week helped the buds to push a bit further so we are starting to get a better, although not final, picture of what type of damage has been done.

Below is a graphical representation of average bud damage found in Concord vineyards being used for the 9 site study being conducted by Terry Bates and the crew at CLEREL, with an assist from Tim Weigle and the Network of Environmental and Weather Applications (NEWA). Each of the sites shown below and listed in the following table is correlated with a NEWA weather instrument. Hourly weather data and much, much more can be found through the NEWA home page at <http://newa.cornell.edu/>

April 17, 2012. Percent average bud damage in 90 node vines treatments of 9 sites Concord study.
Thanks to Kate Robinson, Rhiann Jakubowski and Kim Conti, LERGP at CLEREL staff.



Not surprisingly, vineyards with the most damage continued to be those that had moved past the bud swell stage and were showing pink prior to the March 27 freeze, as well as those with heavy Phomopsis infections and/or lower vine vigor that resulted in weak cane growth. As Table 1 shows the Route 20 (Lake Plain) vineyards typically have the most damage as the buds in these vineyards were more developed than those of the Route 5 (Lake Shore) or escarpment vineyards.

Table 1. Comparison of assessments of bud damage in 9 site study from April 2 and April 17, 2012

	Escarpment Vineyards	Route 20 Vineyards	Route 5 Vineyards
	NE Escarpment	Harborcreek	NE Lab
% Damage April 2	0.6	7.5	0.5
% Damage April 17	3.1	32.3	4.0
	Portland Escarpment	Portland (CLEREL)	Portland Route 5
% Damage April 2	3.1	3.1	4.2
% Damage April 17	7.9	13.3	19.4
	Versailles	Sheridan	Silver Creek
% Damage April 2	14.2	12.2	0
% Damage April 17	100*	39.2	1.6

** Buds have not shown any development since the April 2, 2012 assessment. As this is a research block we are not pulling buds or cutting them to determine their viability so the assessment, as at the other sites, is purely through observation.*

The LERGP at CLEREL team would like to stress that *these damage ratings are to be used only as a guide* to give you an idea of what might be happening in your area. The only way to determine what the actual amount of damage is in your vineyards is to get out and take a look. It is important to keep in mind that the vineyard blocks used in the 9-site study are some of the better sites in each location, so damage can increase dramatically if you move from these vines to those located in the same general vicinity, but in a traditional frost pocket for example. Again, you need to assess the damage in your vineyard operation on a block by block basis and ensuring that all areas of each block are examined.

We saw quite a bit of steely beetle actively feeding in vineyards yesterday. Make sure you continue to monitor for steely beetle so they do not have a chance to build up prior to the secondary buds coming out.

We will continue to monitor the 9 site vineyards as well as those in Niagara County to determine the full extent of the damage to primary buds, the emergence of secondary buds and the viability of the clusters and florets on both primary and secondary buds.

GRAPE CULTURAL PRACTICES: Jodi Creasap-Gee, Ph.D.

Bud Damage and Bud Burst

It's on everyone's mind lately. "How much damage do we have region-wide, and what kind of damage is in my vineyard?" Generally speaking and across the region, damage to primary buds averages to around 25% damage (see Table 1. Above in Tim's piece). HOWEVER, a closer look at the numbers shows that the damage varies quite a bit across the region. From little damage on the western portion of the region (3.1%) to severe damage on the eastern edge (100%!), many vineyards can expect to see a below average crop size this year.

Reports from Niagara County indicate that there is little damage in Concord and Niagara vines, due to the buds being further behind than those down here in Chautauqua County. Estimates from Niagara County so far are <10% damage to primary buds.



Image 1 More primary buds that sustained some 'singeing' with the earlier freezes survived than originally predicted and have grown quite a bit with the recent warm temperatures.

For those areas hit by freezing temperatures, though, by now it is clear which buds are alive and which are dead from the late March and early April freeze events; however, any damage sustained by low temperatures on the morning of April 18 might take a couple of days before we see anything. The buds at Portland have reached 11%-22% bud break, so the tissues grow ever more sensitive to temperatures below 32°F. In fact, some of the primary buds that

suffered some singeing with the earlier freezes have grown with little apparent problems (*Image 1, left*). It is important to keep an eye on the progress of bud development in your individual vineyards and

particular problem areas. Before writing off any blocks this early in the game, consider that secondary buds are beginning to swell and may provide a small crop that would be worth picking this year (*Image 2, right*). The caveat being, of course, that the secondary buds need to survive

through the next 3 to 5 weeks of potential for frost or freeze damage. We urge everyone to go out into his or her vineyards and assess damage in primary buds ASAP so you know what you have and what you may not have.

Damage assessments continue at the CLEREL and Fredonia vineyards (Tables 2 and 3). While initial *actual* damage to primary buds is less than expected, the percentage of potentially damaged buds is now far higher than originally projected. Kelly and Ted will continue to monitor these vines for further phenology, damage, and death this spring.



Image 2 Primary buds that were killed during the freeze events in late March and early April are "crispy" and brown now, and the secondary buds are starting to swell, likely due to the warm weather Sunday and Monday.

What to do. We cannot control the weather, but we can control how we react to it, right? While we are looking at a decrease in crop size in some areas of the Lake Erie Region, it is still critical to maintain adequate weed, disease, and pest control. Fertilizer needs will be less important this year in many vineyards, which is why it is important to check your vineyards for the extent of damage and adjust your fertilizer program accordingly. Some growers have already bought fertilizer and plan to apply it, regardless of damage. Please do keep in mind that bullwood is not nearly as hardy or fruitful as normal wood, so applying fertilizer just "because [you] already have it" may do you more harm than good in the long run, especially if you are looking at a smaller-than-average crop size.

Bud Burst. The vineyards at Fredonia and Portland are quickly approaching bud break (50% bud burst). Again, the trick here is to survive the variable temperatures between now and the end of the potential frost/freeze period – perhaps mid-May?

Table 2. **Frozen** Buds at Fredonia and Portland Lab Vineyards.

	April 4	April 6	April 9	April 13	April 16	Bud Burst (04/16)
Fredonia (balanced pruned)	12%	17%	33%	29%	9%	20%
Portland (120 nodes)	20%	24%	35%	33%	17%	29%
Portland (balanced 20+20)	20%	20%	34%	33%	14%	11%
Portland (80 nodes)	29%	30%	41%	25%	16%	22%

Table 3. **Damaged** Buds at Fredonia and Portland Lab Vineyards.

	April 4	April 6	April 9	April 13	April 16	Bud Burst (04/16)
Fredonia (balanced pruned)	43%	41%	31%	38%	74%	20%
Portland (120 nodes)	51%	47%	41%	47%	69%	29%
Portland (balanced 20+20)	42%	42%	37%	45%	69%	11%
Portland (80 nodes)	49%	50%	41%	56%	71%	22%

From Kelly: Please note that the percent confirmed frozen has dropped from my last rating on April 9th. We found that in some cases, the end of the bud is frozen/dead, but green tissue is growing at the base of the bud. In these cases, we have changed these from "frozen" to "potential damage."

****The 33 year average for 50% Bud Burst in the Fredonia Historical vines is May 5th. The earliest 50% Bud Burst on record is April 19, 2002.**

New Plantings

Word on the street is that there are many acres of Concord plantings going in the ground this year. Some questions have come in as to when to plant, and the answer is very soon, if not now! Ideally, fields have been plowed and prepped (with tile installed where necessary) and are ready for dormant vines.

NASS Tree Fruit and Vineyard Survey is NOW UNDERWAY!

You should have already received a notice in the mail, but please take a moment to complete the NY-NASS Tree Fruit and Vineyard Survey. The last [survey](#) was completed in 2006, so now is the time to update it.

A Message from Jim Trezise, President of the New York Wine and Grape Foundation:

Dear New York Grower or Winery Owner:

You should have recently received the New York Fruit Tree and Vineyard Survey from the USDA National Agricultural Statistics Service (in cooperation with the New York State Department of Agriculture & Markets). I strongly encourage you to promptly complete and return the survey.

The New York Wine & Grape Foundation is sponsoring this survey along with our colleagues at the New York Apple Association. The survey occurs only every five years or so, so the data we now have is woefully out of date. Your response will help make sure that we have full and accurate data, which is important as we show others the size, scope, and economic impact of our industry.

Please take the time to respond soon.

All the best,
Jim Trezise

If you have questions about your survey or cannot find your paper copy, please contact:

King J. Whetstone, Director, New York Field Office
USDA - National Agricultural Statistics Service
operated in cooperation with
New York State Department of Agriculture
and Markets
Phone: (518) 457-5570
king_whetstone@nass.usda.gov
<http://www.nass.usda.gov/index.asp>

And finally...

I will be out of the office on maternity leave until the first week of August. In the meantime, please be sure to continue to submit samples for petiole and soil sampling through our office.

A viticulture specialist from the Finger Lakes Regional Grape Program will be providing the recommendations for tests completed during my absence.

A few seasonal practices to keep in mind:

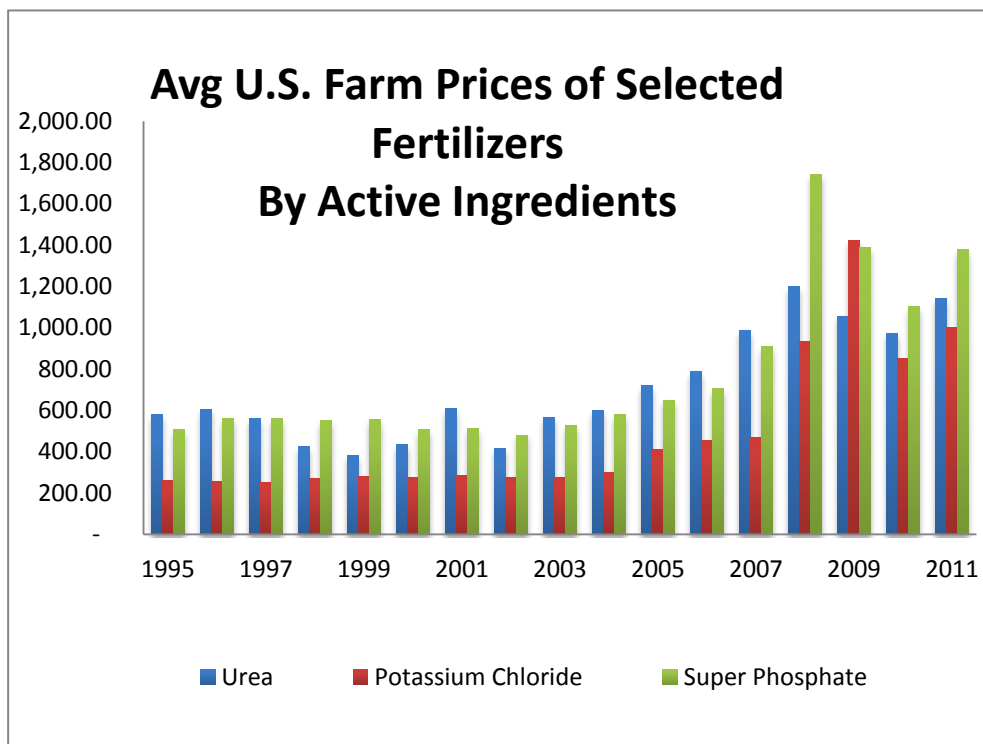
- + Nutrition Management – Hold back on N if severe spring freeze damage. Soil testing is still a great idea!
- + Shoot thinning in wine grapes at 5” shoot growth – IF no severe spring freeze damage, thin to 4 to 5 shoots/foot of row.
- + Map blocks for soil testing
- + Petiole testing – at bloom or 70-100 days after bloom
- + Crop Estimation at 30 days after bloom: This will be absolutely critical this year, especially after these spring freezes. Maintain vine health and productivity with weed and pest management and reduction or elimination of fertilizer.
- + Shoot Positioning – Mechanical, to manage vine vigor for the current season and to decrease time spent on pruning.

BUSINESS MANAGEMENT: Kevin Martin

Fertilizer prices were on the rise last year, as USDA’s lagging indicator of farm survey shows in figure 1. (*below*). The long-term trends clearly show upward prices on actual active ingredients, which is no surprise to our regional growers. One hundred pounds of actual N via Urea cost the average farmer \$55 last year. Two hundred pounds of actual Potassium via S. Phosphate cost the average farmer \$140 last year. USDA data is highly correlated with other forms of fertilizer, based on active ingredients. The specific types of fertilizer included in the survey are limited to those most important to field crops.

These rates represent what many growers apply on an annual basis. Growers, however, continue to deviate from those high rates, increasing economic efficiency because of these higher prices. Frequent soil testing and aggressive management have allowed some growers to keep fertilizer costs per acre fixed at 1995 levels.

Figure 1



Efficient fertilizer use requires application rates to be related to expected yields whenever possible. Per acre costs, of potash in particular, increase when yield increases. With the significant frost events this year, an accurate assessment before a nitrogen application can result in meaningful economic savings. If damage is significant enough and no nitrogen is applied,

the savings would equal the cost of an EBDC application.

USDA measured fertilizer costs seasonally for years and discontinued the practice nearly a decade ago. It appears the reasoning is that the seasonal fluctuations are far less predictable than other commodities, such as fuel. Volatility, expected demand, actual demand, and production costs appear to play a larger role in price swings than seasonal factors. Timing fertilizer purchases can provide a significant edge, but doing so can be challenging. Professional analysts have continued to fail at doing so. As actual users of the end product you don't assume nearly as much risk as an actual trader or merchant when timing the purchase of fertilizer. If there is an obvious bargain, as there was in Potash last summer, by all means take advantage if you have the ability to do so. Unlike fuel costs, the timely purchase of fertilizer costs cannot justify additional storage on your farm. The cost of storage, over the long term, will be greater than the savings realized. Unless, of course, you are extremely adept at timing your purchases and nearly always make purchases near their annual lows.

Storage costs can also be significant because fertilizer like nitrogen cannot simply be banked in the soil. An early purchase of nitrogen this year would be troubling because the average grower will have significantly less demand for nitrogen as compared with an average year. His options are limited to long-term storage, resale to other growers, or an unnecessary application this year. All result in costs that are less efficient than simply purchasing the nitrogen in 2013. This assessment, of course, is limited to the average grower. The average grower this year would have organic matter in the high range of normal and a crop significantly below average.

REGISTRATION DEADLINE AND MONEY DUE: PESTICIDE TRAINING AND EXAM (Below)

Please register by Friday, April 23, 2012

PESTICIDE TRAINING AND EXAM

DATE: Thursday, May 3, 2012

TIME: 8:30 AM – 4:00 PM

LOCATION: Chautauqua County, Frank Bratt Agricultural Center, 3542 Turner Rd., Jamestown, NY 14701

COST: The cost of the morning training is \$15.00 and must be received by Monday, April 23, 2012. This fee **does not** cover the cost of exams or manuals.

SPACE IS LIMITED: PRE-REGISTRATION IS REQUIRED BY MONDAY, APRIL 23, 2012

*****More information and Registration form are at the end of this Update! Please read all documents carefully.**

MARK YOUR CALENDARS!!! COFFEE POT MEETINGS ARE STARTING FOR 2012!



Wednesday CLEREL
May 2, 2012 6592 W Main Rd. Portland NY 14769

Wednesday Jordan's 21 Brix
May 9, 2012 6654 W Main Rd. Portland NY 14769

Wednesday TBA
May 16, 2012

Wednesday Harry Raby vineyard
May 23, 2012 Diller Raby Farm 2055 Ridge Rd Lewiston NY 14092

Wednesday Dan Sprague vineyard
May 30, 2012 12435 Versailles Rd. Irving NY 14081

Next Electronic Crop Update will be: Thursday, April 26, 2012

Lake Erie Regional Grape Program Crop Update is an e-mail newsletter produced by the Lake Erie Regional Grape Program and sent out by subscription only. For subscription information, please call us at 716.792.2800 ext 201, or look for subscription forms at http://lergp.cce.cornell.edu/Join_Lergp.htm.

Lake Erie Regional Grape Program Team Members:

[Andy Muza](#), Extension Educator, Erie County, PA Cooperative Extension, 814.825.0900

[Tim Weigle](#), Grape IPM Extension Associate, NYSIPM, 716.792.2800 ext. 203

[Jodi Creasap Gee](#), Viticulture Extension Associate, CCE, 716. 792.2800 ext. 204

[Kevin Martin](#), Business Management Educator, 716. 792.2800 ext. 205

For any questions or comments on the format of this update please contact Tim Weigle at:

thw4@cornell.edu.

Subscribe to [Appellation Cornell newsletter](#):

<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/index.cfm>

[2010 Appellation Cornell Newsletter Index](#):

<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/2010-index.cfm>

[Veraison to Harvest newsletters](#):

<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/veraison-to-harvest/index.cfm>

[NY Grape & Wine Classifieds](#) – New Address! - <http://flgclassifieds.cce.cornell.edu/>

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**



Cornell University
New York State
Integrated Pest Management Program

“CORE” Pesticide Training and Exam

***** Space is limited --- pre-registration is required *****

*****by Monday, April 23, 2012 *****

Core level pesticide training will be offered by NYS IPM Program, Cornell Cooperative Extension on May 3, 2012 at the location listed below. **3.0 Credits for NYS Pesticide Applicator Re-certification** (these are core credits that do not cover category specific requirements) are available. PA core credits have been applied for. The NYS-DEC is offering pesticide applicator exams following the training.

Thursday, May 3, 2012

Chautauqua County
Frank Bratt Agricultural Center
3542 Turner Road
Jamestown, NY 14701

The above program will all follow this schedule: 9:00 AM to 12:15 PM Core Training Session, 12:15 PM to 1:00 PM lunch on your own, 1:00 PM - DEC Pesticide Exam Session. You must pre-register for the exam with NYS-DEC by calling the Buffalo office at (716) 851-7220. The cost of the morning training is \$15.00 and must be received by Monday, April 23, 2012. This fee **does not** cover the cost of exams or manuals.

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. A pesticide manual order form and course registration form are enclosed. These need to be returned to the Jamestown office (pre-registration is required for the training). **You must also register with the Buffalo DEC office if you are planning on taking any exam.** Also, remember lunch is not provided at the day session so bring a lunch or plan to get something quick in town. **Training begins promptly at 9:00 AM and exams at 1:00 PM sharp.**

**DEC PROCEDURES REQUIRE YOU TO REGISTER FOR ENTRANCE TO THE EXAM SESSION
WITH THE BUFFALO DEC OFFICE AT (716) 851-7220.**

If you have any questions, call me at 716-792-2800 x 203.

Tim Weigle
Senior Extension Associate,
Statewide Grape IPM, NYS IPM Program
Cornell Cooperative Extension

Accommodations for persons with disabilities may be requested by contacting Tim Weigle at 716-792-2800, ext 203 or thw4@cornell.edu by April 23, 2012.

NOTES FOR PEOPLE TAKING EXAMS

NYS-DEC has raised exam fees to \$100.00 for all exams. This fee must be paid prior to the exam date. If you are planning on taking any exam, contact the Buffalo DEC office at 716-851-7220 at least two weeks prior to the exam session. You will then be sent an exam application form and test instructions by the DEC.

Cornell Cooperative Extension can provide you with the books for the exams (see attached order form). However, questions about eligibility to take the exams or current certification status must be handled by the DEC office in Buffalo.

Notes for Buying Manuals for the Exam

Commercial Applicators: You will need the “Core Manual” and the category manual for the area 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.

DEC PROCEDURES REQUIRE YOU TO REGISTER FOR ENTRANCE TO THE EXAM SESSION WITH THE BUFFALO DEC OFFICE AT (716) 851-7220.

REGISTER FOR ANY TRAINING WITH THE APPROPRIATE CORNELL COOPERATIVE EXTENSION OFFICE.

**You can also order manuals directly from
PEMP at Cornell University by calling:
(607) 255-7282**

ORDERS MUST BE RECEIVED BY Monday, April 16, 2012

**PESTICIDE TRAINING MANUALS
ORDER FORM**

Qty	Title	Price each	Total
_____	"CORE" Manual (Needed by both commercial and private applicators (2003)	\$35.00	_____
_____	Federal Farm Worker Protection "How to Comply" manual	No Charge	
	Commercial Category Manuals		
_____	1.a. AGRICULTURE- PLANT (2006)	\$35.00	_____
_____	1.b. AGRICULTURE-ANIMAL (1999)	20.00	_____
_____	2. FOREST (2006)	35.00	_____
_____	3. ORNAMENTAL & TURF (2004)	35.00	_____
_____	4. SEED TREATMENT (1977)	14.00	_____
_____	5. AQUATIC (2004)	30.00	_____
_____	5.e. SEWER LINE ROOT CONTROL (1996)	30.00	_____
_____	6. RIGHT-OF-WAY (2005)	35.00	_____
_____	6b. GROUND LINE INSPECTION & PRESERVATIVE RETREATMENT OF STANDING WOOD UTILITY POLES (2002)	15.00	_____
_____	7.a. STRUCTURAL AND RODENT (2006)	35.00	_____
_____	7.b. FUMIGATION (1993)	24.00	_____
_____	7.c. TERMITE APPLICATOR'S CERTIFICATION PACKET (2000)	34.00	_____
_____	7.d. LUMBER AND WOOD PRODUCTS (1987)	15.00	_____
_____	7.f. FOOD PROCESSING (2005)	35.00	_____
_____	7.g. COOLING TOWERS (1998)	24.00	_____
_____	8. PUBLIC HEALTH (2002)	30.00	_____
_____	10. DEMONSTRATION AND RESEARCH (1978)	19.00	_____
_____	11. AERIAL APPLICATION (2001)	30.00	_____
_____	12. SALES (2004)	30.00	_____
	Private Applicator Training Manuals		
_____	21 Private Field and Forage (2003)	\$30.00	_____
_____	22 Private Fruit (2003)	30.00	_____
_____	23 Private Vegetable (2004)	30.00	_____
_____	24 Private Greenhouse & Florist (2002)	30.00	_____
_____	25 Private Nursery, Ornamentals & Turf (2004)	30.00	_____
_____	I will pick up my manuals at my local Cornell University Cooperative Extension office	No Charge for Postage & Handling	
_____	Please mail my manuals to me.		
	I have added \$6.50 for Postage & Handling		_____
	Total		_____

“CORE” Pesticide Training Registration Form

Space is limited - pre-registration is required.

Manual orders must be received by Monday, April 16, 2012.

To register for the training, fill out the following and send to the address below:

Agricultural Program
Chautauqua County CCE
Frank Bratt Agricultural Center
3542 Turner Road
Jamestown, NY 14701

Name(s) _____

Address _____

Phone _____ Number Attending _____

Registration and **payment** by Monday, April 23 (\$15 per person) \$ _____

Cost of manuals (from enclosed order form) \$ _____

(Manual orders must be received by Monday, April 16, 2012)

Total enclosed \$ _____

Make Checks Payable To: **Cornell University Cooperative Extension**

Do **not** include payment for your exam. This payment must be sent to DEC prior to the exam.