



Finger Lakes Vineyard Update

Two Quick Reminders: 2014 Enrollment and Register for B.E.V. NY

Hans Walter-Peterson

Before I get into the nitty gritty of the impact of the cold temperatures on the vineyards so far, I wanted to put out two quick reminders up front.

FLGP Enrollment for 2014

If you haven't already, now is the time to renew your enrollment in the Grape Program for 2014. You can do it by sending in a paper form (you can [download them here](#) or call our office for a hard copy) along with a check, or use our online enrollment process that will let you pay using a credit card. The address for the online enrollment page is <https://flgp.cce.cornell.edu/enrollment.php>. Membership rates are \$70 if you farm in one of the program's counties (Ontario, Seneca, Schuyler, Steuben and Yates), or \$125 if you are outside of one of those.

The information about winter injury that is included in this Update is an example of the kind of work that you and your fellow growers are supporting when you join the FLGP. We trust that you find this kind of information, along with the meetings and conferences we put on and the publications and educational information that we develop, to be an important resource for the success of your business. Funding from our traditional public sources is declining (see the notice in this week's Update about the IPM Guidelines no longer being available online), and so the support we get from the industry is even more important now.

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finger lakes
grape program

2014 Pesticide Training and Recertification Series

*February 3, 10, 17, 24 2014
Exam March 3, 7*

The Northern Grape Project Webinar Series

February 11, 2014

Pruning Workshop

February 14, 2014

B.E.V. NY 2014 – Save the Dates!

Thursday, February 27 – Saturday, March 1, 2014

Two Quick Reminders (continue from page 1)



B.E.V. NY: [Business. Enology. Viticulture.]

Thursday, February 27 – Saturday, March 1, 2014

Holiday Inn Waterloo

2468 Route 414, Waterloo NY

(2 Pesticide credits will be available on Saturday only)

Registration and program information is available at <http://events.cals.cornell.edu/bevny2014>.

The New York Wine Industry Workshop and Finger Lakes Grape Growers Conference have a new name but the same focus: providing the New York grape and wine industry with the most current and relevant evidence-based information. This year, drink local and learn local as we showcase the expertise of wine researchers from your own backyard. Experts from Cornell, Penn State, Finger Lakes Community College, and Tompkins Cortland Community College will present on topics ranging from soil pH to tannins to social media use.

Thursday, February 27 - Business

Topics covered will include regulatory issues, branding and marketing and current industry trends.

Friday, February 28 - Enology

Planned topics include spontaneous and co-fermentations, oxygen and sulfur management, wine acidity and more.

Saturday, March 1 - Viticulture

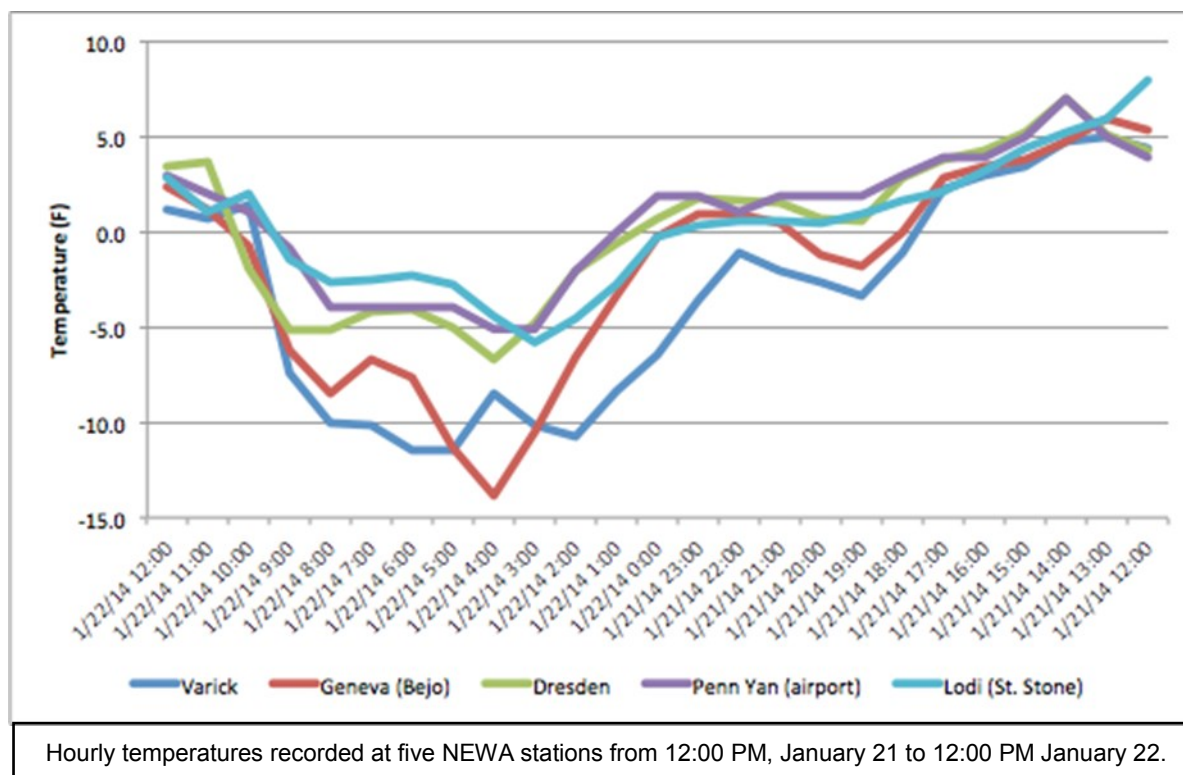
Scheduled subjects include management of weeds, viruses, canopies, soil pH and cover crops. Also on Saturday - the annual trade show and wine reception.

So drink local, and learn local by attending B.E.V. NY!

Winter Injury in the Finger Lakes—An Update

Hans Walter-Peterson

Since the last Vineyard Update two weeks ago, we've been able to collect some more data about just where things stand with regard to bud injury in several different locations and a broader range of varieties. Unfortunately, we also had another deep freeze episode in some spots during the early morning of January 22. Based on data from several NEWA weather stations around the area, the coldest temperatures hit places like Geneva, Fayette and Varick, where temperatures not only got down to -10°F or lower, but the cold hung around there for a few hours or more, depending on location. There apparently was a pretty distinct change as you moved just a bit further south, though, because temperatures at our teaching vineyard at Dresden "only" dropped to -6.7°F.



Bud Hardiness Testing

Project Website:

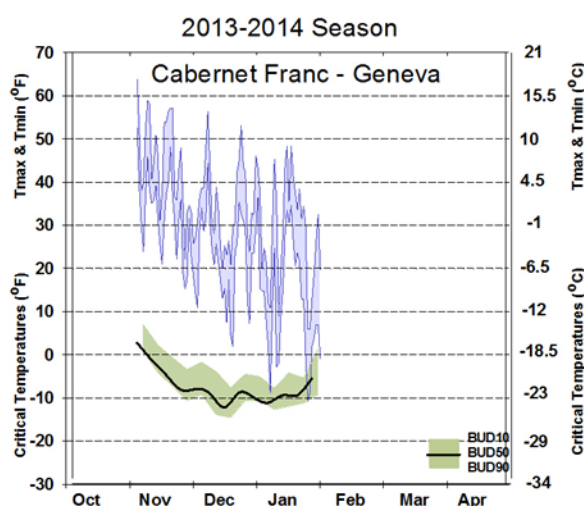
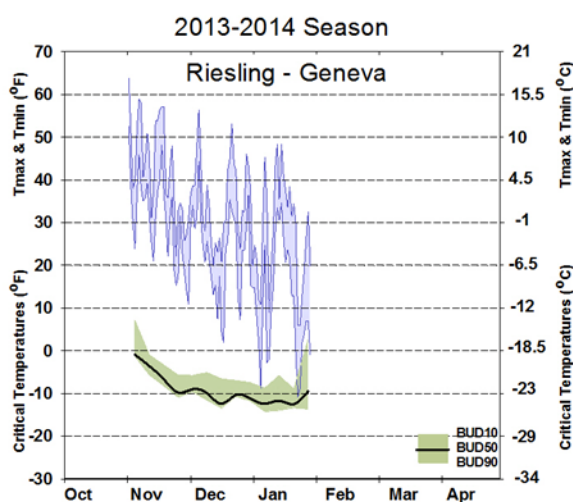
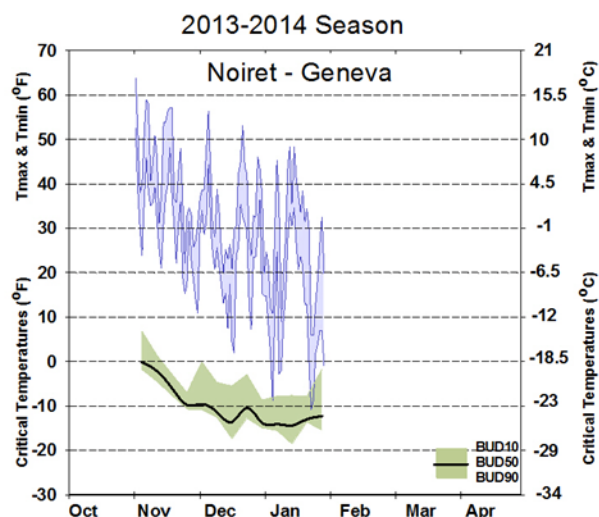
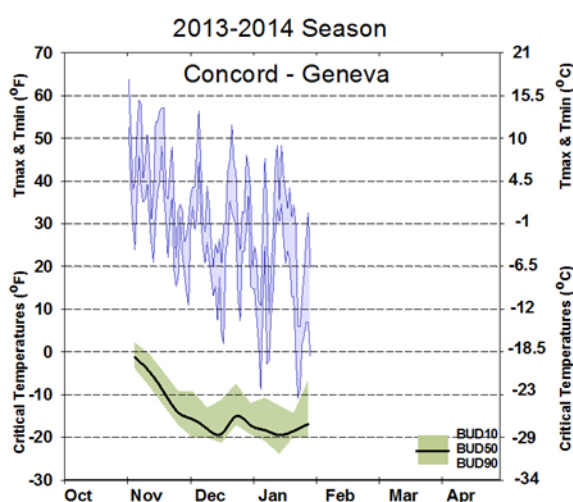
<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/outreach/viticulture/weather.cfm>

The most recent results from our bud hardiness tests from around the region still look good, overall (i.e., LT₅₀ results are in line with what we would expect to see at this time of year for the varieties that we monitor). When we look at temperature data from each site compared to the hardiness test results, most places are probably looking at some level of damage to buds. But is it enough to be worried about? Again, it's going to depend on site and variety.

Looking at this weeks testing results from Geneva (where we got down to -12° or so last week), we would expect to see some damage to all four varieties (see graphs below), with the least in Concord and some in Noiret. The results for the other two varieties look pretty grim, especially Cabernet Franc which looks like it lost significant hardiness (from -9 last week to -5.5 this week). We think that this is the result of having

Winter Injury in the Finger Lakes—An Update (continue from page 3)

some buds in our sample that were already damaged, but had not desiccated by the time they were put in the freezer for the test. This probably explains the dramatic reduction in hardiness for that variety, and perhaps for Riesling to an extent. If you look at the data for the other locations where we collect samples, the LT₅₀ value for Cab Franc remains around -10F. So while the actual LT₅₀ level for healthy buds in those two varieties may be a bit better than this week's data would indicate, the main message still remains - it got cold enough in certain areas to cause some fairly significant bud damage, and growers need to do their own sampling in order to figure out how much damage there is in order to adapt their pruning practices.



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Variety	LT ₁₀	LT ₅₀	LT ₉₀
Cabernet Franc			
Noiret	-2.8	-12.3	-16.7
Concord			
Riesling	1.8	-9.5	-14.9

Bud hardiness values at Geneva, Jan. 27, 2014.

Bud Injury Sampling Results

We're starting to hear from a few growers about their results from checking buds in their own vineyards, and it sounds like there's a wide range of bud injury - again, depending on location and variety. Below are the results from our bud injury assessment this week, which confirm that impression we're getting from the growers. These samples were all collected Monday or Tuesday this week, and were checked today (January 29).

Location	Variety	% injury* (dead buds)
Bluff Point		
	Catawba	22%
	Cayuga White	40%
Fayette	Chardonnay	94%
	Gewürztraminer	78%
Ovid	Catawba	14%
	Cabernet Franc	46%

Winter Injury in the Finger Lakes—An Update (continue from page 5)

Location	Variety	% injury* (dead buds)
	Riesling	42%
	Pinot Noir	38%
South Bristol	Concord	2%
	Cayuga White	28%
	Riesling	56%
Hector	Concord	6%
	Riesling	8%
	Gewürztraminer	26%
	Merlot	24%
Geneva	Riesling	60%
	Gewürztraminer	68%
	Cabernet Franc	36%
	Chardonnay	56%
Dundee	Cayuga White	20%
	Chardonnay	14%
	Riesling	18%
	Gewürztraminer	28%

** Results based on 50 bud samples, collected as 5 ten-bud canes.*

As you can see, vineyards near the north end of Seneca Lake seem to have gotten the worst of it, but there's some damage everywhere. In some of these cases, the level of bud injury is higher than we would expect based on the bud hardiness results that we've been getting so far, which again argues for growers doing their own assessments before starting to prune, especially in less cold-hardy varieties.

Pruning strategies in response to injury

In some instances (e.g., Concord), growers may not need to make major adjustments to their pruning practices. In many of these cases though, growers should be considering retaining extra buds in order to try to make up for the crop losses due to significant bud injury. Two weeks ago, I suggested following guidelines that Bob Pool used for many years. While they might still work, some more recent guidelines

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should probably be considered, based on some new research and the training systems used for many of the varieties that suffered injury:

- *Less than 15% injury*: No adjustment to pruning is needed.
- *15-34% Primary bud injury*: Increase the number of buds retained by 35% or so. If 4 ten bud canes (40 buds) are normally kept, then an additional 14 buds should be retained to compensate for the injury.
- *35-50% injury*: Double the number of buds normally retained.
- *Over 50% injury*: ‘Minimal pruning’ by hedging to long spurs (primarily for VSP-trained vines). See below for some more details about this strategy.

Spur Pruning Instead of Cane Pruning

In order to compensate for the loss of primary buds that carry most of the crop in grapes, growers need to leave a higher number of buds per vine in order to get closer to a normal crop the following growing season. In training systems that are based on cane pruning, that means needing to leave more canes in order to increase the number of retained buds. If a grower normally leaves 4 canes on a VSP trellis under normal conditions, they might need to leave 6 or 8 canes in that same vine space in order to compensate for higher levels of bud injury.

A more practical way to increase the number of buds per vine is to use spur pruning instead of cane. The number of nodes retained per vine can be increased merely by increasing the length of each spur. This strategy can be used with vines that are on VSP trellises as well as those using a high-wire umbrella system that also uses canes.

Hedging Vines With Severe Bud Injury

Our colleague at Ohio State, Dr. Imed Dami, did some work looking at some different pruning strategies after a major cold event in 2009 caused very high levels of bud injury in a number of varieties. Imed looked at four different pruning levels in a Pinot gris vineyard that sustained 90% loss of primary buds:

- “standard” two bud spur pruning (5 buds/ft of cordon),
- hedging all canes to two bud spurs,
- hedging all canes to five bud spurs,
- no pruning at all

As you would expect, the unpruned treatment had the highest yield of the four, followed by the five bud spurs and then both two bud spur treatments. However, the pruning weight (one year wood) of the unpruned vines was also the lowest of the four treatments (there was no statistical difference between the other three treatments), which caused the vines to be out of balance. At the other end, the two bud spur treatments had lower yields per vine, making them less economical options.

Imed found that the best combination of fruit and vegetative production was on the vines hedged to five bud spurs. If you have blocks with more than 50% bud injury, I would suggest giving this idea some consideration.

Imed’s research is summarized in an article from the April 2012 issue of *Wines and Vines*, called “Pruning Grapevines After Winter Injury”. The article is available online at <http://www.winesandvines.com/template.cfm?section=features&content=98678>.

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Further resources for information on winter injury:

For information on how to collect and assess buds for winter injury, watch our YouTube videos:

Checking Grape Buds for Winter Injury, Part 1: Collecting Samples

http://www.youtube.com/watch?v=_RHJ5mY3fAs

Checking Grape Buds for Winter Injury, Part 2: Cutting Buds

<http://www.youtube.com/watch?v=eWtr0jzI2Dk>

[Assessing Winter Cold Injury to Grape Buds](#) (2000 Robert Pool, Revised 2011)

[Assessing Winter Cold Injury of Grape Canes and Trunks](#) (2000 Robert Pool, Revised 2011)

[How Grapevine Buds Gain and Lose Cold-hardiness](#) (2011, Appellation Cornell Newsletter)

[The Anatomy of Winter Injury and Recovery](#), by Martin Goffinet (2004)

[Winter Injury to Grapevines and Methods of Protection](#) (2007) - The FLGP office in Penn Yan has several copies of this book for sale, if you would like to purchase it from us directly. Cost: \$15.

2014 New York and Pennsylvania Pest Management Guidelines for Grapes Now Available

Tim Weigle, Grape IPM Specialist

The 2014 edition of the New York and Pennsylvania Pest Management Guidelines for Grapes is now available. This annual publication provides up-to-date pest management information for those producing grapes in New York State and Pennsylvania. It has been designed as a practical guide for grape producers, pesticide dealers, and others who advise those involved in grape production.

In addition to the annually revised pesticide and pest management information, highlighted changes in the 2014 Grape Guidelines include:

- Information on forthcoming pesticide label requirements for pollinator protection.
- Updated information on recycling agricultural plastics in New York State.
- Addition of a new insecticide table featuring resistance management codes, insecticide effectiveness, and toxicity to natural enemies.
- Updated postharvest downy mildew management strategies.

Online Version of the Pest Management Guidelines To Be **Discontinued** in 2014

According to Mike Helms, Managing Editor of the Cornell Guidelines, the Pesticide Management Education Program is facing significant budgetary restraints due to a loss in funding. Due to these constraints, they have had to reduce staff and have closed their distribution office, transferring distribution operations to the Cornell Store. Because of funding reductions, they are now relying, more than ever, on sales of our pesticide applicator training materials and Cornell Guideline products.

One item not currently meeting PMEP's cost recovery needs is the online edition of the Cornell Guidelines. When PMEP took on production of the Guidelines some seven years ago, they continued the established practice of providing free online access to them. This was justified by using the idea that print edition sales would help to underwrite the costs of free online access. This assumption is no longer valid. Overall sales for the print Guidelines have decreased in the past few years and are not adequate to help support free online Guideline access.

With the lack of significant financial support to cover the infrastructure and staff costs of putting the Guidelines online for free, the 2014 Cornell Guidelines will NOT be available online. Over the next year, PMEP will undertake the task of evaluating ways we might effectively recapture the costs of providing the Guidelines online.

Note: If you would like to order a hard copy of the 2014 Pest Management Guidelines for Grapes, please contact our office at 315-536-5134 or kag255@cornell.edu. The cost is \$30 per copy, including shipping.

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Upcoming Events

Don't forget to check out the calendar on our website (<http://flgp.cce.cornell.edu/events.php>) for more information about these and other events relevant to the Finger Lakes grape industry.



B.E.V. NY 2014

Thursday, February 27 – Saturday, March 1, 2014

Holiday Inn – Waterloo NY

Drink Local, Learn Local. Business, Enology and Viticulture information all in one event.

See above or visit <http://events.cals.cornell.edu/bevny2014> for more information.

2014 Pesticide Training And Recertification Series

February 3, 10, 17, 24. Exam: Monday, March 3. 7 – 9:30 p.m.

Cornell Cooperative Extension

480 North Main Street, Canandaigua, NY 14424

Anyone interested in obtaining a pesticide certification and meets the D.E.C. (Department of Environmental Conservation) experience/education requirements or current applicators seeking pesticide recertification credits should attend. This training is NOT a 30-hour certification course. The Pesticide Training and Recertification classes will be held at Cornell Cooperative Extension – Ontario County on Mondays, February 3, 10, 17, 24, 2014 from 7:00 pm to 9:30 pm with the exam being offered on Monday, March 3, 2014 from 6:30 – 110 p.m. The program series includes the following topics:

- Class 1: Pesticide Laws and Regulations;
- Class 2: Pesticides and the Environment;
- Class 3: Pesticide Safety;
- Class 4: Pesticide Mixing and Equipment Calibrations.

The cost for the pesticide training to obtain certification is \$140.00, includes training manuals and attendance at all four classes. This does not include the \$100.00 DEC exam fee, due the day of the exam. Certified applicators, private and commercial applicators seeking recertification credits will receive 2.5 core credits per class.

The cost for recertification is \$75.00 for all four classes or \$20.00 per class. To receive registration material or for additional information, contact Cornell Cooperative Extension of Ontario County at (585) 394-3977 ext. 427, email nea8@cornell.edu or ext. 436, email rw43@cornell.edu. The registration form and more information is available on-line at www.cceontario.org

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The Northern Grapes Project Webinar Series



Anna Katharine Mansfield,
Cornell University

"Are you feeding your yeast?"

The importance of YAN for healthy fermentation."

Tuesday, February 11, 2014

12:00 Noon Eastern (11:00 am Central)

7:00 pm Eastern (6:00 pm Central)

Every winemaker knows that yeast metabolize sugar to produce alcohol, but few consider the implications of fine-tuning yeast available nitrogen (YAN) during fermentation. Lack of sufficient nutrients can cause stuck, sluggish, or stinky fermentations, while excessive YAN leads to diminished aromatic complexity and increased potential for microbial spoilage. YAN is difficult to measure and impossible to guesstimate, but many winemakers rely on prophylactic nutrient additions to keep fermentations healthy. In this webinar, Cornell Enologist Anna Katharine Mansfield will review YAN basics and present the latest research on YAN prediction and flavor implications.

To register for this webinar, visit https://cornell.qualtrics.com/SE/?SID=SV_3aU0PrTxm1E6K57. Registration will close at 8 am (Eastern) on Monday, February 10th.

Registering for one Northern Grapes Webinar will place you on the mailing list, and you will receive announcements and connection instruction for all further Northern Grapes Webinars.

Feel free to email Chrislyn Particka (cap297@cornell.edu) with any questions, if you want to check your registration status, or if you'd like to be removed from the Northern Grapes Webinar mailing list.

Pruning Workshop

Friday, February 14, 2014 1:00 – 4:00 PM

Jordan Hall Auditorium, New York State Agricultural Experiment Station

630 W. North Street

Geneva, NY 14456

Are you interested in learning how to prune grape vines? Then you won't want to miss the Finger Lakes Grape Program's pruning class and hands-on demonstration. There will be a brief indoor session with plenty of time to get familiarized with proper techniques and ask any question you may have. Then we will go outside and all attendees will have the opportunity to prune vines on three different training systems.

Pre-registration is required and the cost is \$30 per person (class size limited to 25 people). You can register online at the [workshop's registration page](#), or call the Yates County Cooperative Extension office at 315-536-5134.

Additional Information

Got some grapes to sell? Looking to buy some equipment or bulk wine? List your ad on the [NY Grape & Wine Classifieds website](#) today!

Become a fan of the [Finger Lakes Grape Program on Facebook](#), or follow us on [Twitter \(@cceflgp\)](#). Also check out our website, “The Grape Lakes – Viticulture in the Finger Lakes” at <http://flg.cce.cornell.edu>.

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