

Cornell Cooperative Extension

Finger Lakes Grape Program



March 12th, 2020

Finger Lakes Vineyard Update

Bud Hardiness Update

Our warmer than average winter has continued up to this point, which has made life easier when it comes to pruning grapevines. Based on the results from our most recent sampling run (collected last week), the buds continue to retain good levels of hardiness, although I expect that these numbers will be changing when we collect our next set of buds next week. The LT₅₀ values for all of the cultivars that we check are still below -10°F (Table 1).

	Average LT ₅₀ (°F)
Cabernet Franc	-10.6
Cayuga White	-12.2
Concord	-13.0
Riesling	-11.9

Table 1. Average LT₅₀ values for samples collected March 2, 2020.

As far as actual bud injury goes, we will be checking most of the varieties at the Teaching Vineyard next week. Earlier tests (late January/early February) showed less than 10% injury in most of the varieties we checked, except for Grüner Veltliner which was around 17%. These vines, however, were heavily cropped last year and many of the canes are fairly small with a lot of “paper wood”, so this still isn’t terribly surprising.

I have not heard reports this winter of significant bud injury levels from growers, but we would appreciate hearing about any results that they may be willing to share. One way to do that is to enter the information in the online spreadsheet that Don prepared earlier this winter – the link is <https://tinyurl.com/r3xhwuy>. We will include our sample results in here next week as well.

In This Issue:	
Bud Hardiness	pg. 1
COVID-19	pg. 3
Spanish Speaking Training	pg. 3
Northern Grapes Webinar	pg. 4
CORE Pesticide Training	pg. 5

Chilling Hours

It’s not something that we talk about with grapes very often, but as we push towards budbreak, I just wanted to mention a couple of things about chilling hours this winter, and what it might mean for budbreak this year.

All deciduous plants, including grapes, have to go through a dormancy period before they will begin growth again the following season. The length of that dormancy is determined by two things – the climatic conditions, and the genetic programming within the vine itself. Every kind of deciduous plant has a certain amount of time that it requires within a particular temperature range – about 0 - 14°C (32 - 57°F) before it is prepared to begin a new season of growth, called *chilling hours*. Once a plant achieves its chilling requirement, it is ready to begin growing again when warm temperatures return. If a plant does not accumulate enough chilling hours, budbreak will be uneven or may not happen at all.



Bud Hardiness Update (continued from page 1)

In some ways, the name chilling hours might be a little misleading. In a location with very cold winters, like Minnesota for example, the number of chilling hours in a given winter will often be lower than warmer locations like the Finger Lakes. This is because temperatures below 0°C do not count towards a plant’s chilling requirement. So locations that spend more time with temperatures just above freezing will actually have higher chilling hour accumulations than very cold regions.

Given our relatively warm temperatures this winter, therefore, you would probably guess that our chilling hours this winter are greater than what we would normally have at this point, and you would be correct. So far this season, Jason Londo (USDA geneticist and cold-hardiness guru) has calculated that we have accumulated about 1440 chilling hours, which is about 400 hours more than this time last winter. In general, grapevines need somewhere around 600-700 chilling hours each year, so we have significantly more than met the requirements for our commercial cultivars.

As the vines accumulate more chilling hours, it takes less time in warm conditions for the buds to break. Because we have a higher number of chilling hours this year, it means that the buds will be more primed to begin to swell and open if we get a few warm days than they normally would. While the number of chilling hours for our cultivated varieties is pretty similar, how quickly they each respond to that warmth in the spring (or late winter) can be significantly different. Most growers know this from experience, but the research has backed it up. Cultivars that are based on *Vitis riparia* (e.g., La Crescent, Marquette) or *V. labrusca* (e.g., Concord) respond to these warmer temperatures faster than cultivars based on *V. vinifera*. Cultivars that are based on species like *V. aestivalis* (e.g. Norton) from more southern climates will react more slowly to those warmer temperatures.

So what does this mean for the coming year? Obviously it’s hard to predict much at this point, but based on what we know, the vines are more than ready for spring. Because of the high number of chilling hours this winter, the vines will all deacclimate more rapidly than they would after a “normal” winter (although still at the same relative rates compared to each other), which means some of the very early varieties like Marquette and possibly Concord could be at a bit of a higher risk for spring frost injury. Time will tell.

Table 2. Examples of cultivars grouped by relative rates of deacclimation after achieving their chilling requirements.

	Example Cultivars
Most rapid deacclimation	La Crescent, Marquette
Fairly rapid deacclimation	Chardonnay, Riesling, Gewürztraminer
Moderate deacclimation	Cabernet Franc, Merlot, Pinot noir, Lemberger
Slow deacclimation	Cabernet Sauvignon, Sauvignon blanc

How COVID-19 is Impacting Cornell and FLGP

The rapid spread of the COVID-19 virus is the subject that is taking over much of the news and lots of mind space for many people right now, and it's impacting a lot of activities around the world, and that includes Cornell. You may have heard that Cornell will be stopping all in-person classes after March 27, which is the beginning of spring break, for the remainder of the spring semester. The university is also prohibiting any university-sponsored events on or off campus with 100 people or more. This restriction applies to events and activities not just on campus in Ithaca, but also at Cornell AgriTech and other locations around the state, including workshops, conferences, and other meetings.

Closer to home, the FLGP staff are based at the CCE office in Penn Yan, and the director there, Arlene Wilson, has been working with the staff there and other offices in the Yates County Office Building on implementing safety measures there to minimize the potential for infection. The same is being done at AgriTech in Geneva, where we spend a fair bit of time as well.

As far as our extension activities, we have been planning our seasonal meeting calendar, including the Spring Grape IPM meeting. Our attendance at this meeting is typically close to 100 people, and could therefore potentially fall under the restriction in place from Cornell. We are moving forward with plans for the meeting right now, which is scheduled for Tuesday, May 5 at Wagner Vineyards, in hopes that conditions regarding the virus are improved, but we are keeping in mind the importance of the safety and health of our community. We will keep everyone updated on the situation regarding the IPM meeting as we get closer to the date. At this point, we are still planning on holding our Tailgate Meetings beginning on May 12. The schedule for those will be coming out shortly.

Don and I are continuing to plan for our field trials this year, and I remain available for on-farm visits and consultations, so there are no changes planned to those aspects of our work.

As you have seen, the situation with this virus is changing from day to day, or even hour to hour. We are committed to continuing our work for the industry the best that we can while also being smart about taking precautions to keep people safe and healthy. More to come on all of this, I'm sure.

In the meantime, I'm going to go wash my hands...

Spanish-Language Farm Safety and WPS Workshop

The Finger Lakes Grape Program, NYCAMH, and Cornell Cooperative Extension of Yates County will be holding Spanish-language farm safety and Worker Protection Standard (WPS) trainings from 1:00 – 4:00 PM on Monday, March 23. The workshops will take place at Hermann J. Wiemer Vineyards, 3962 NY-14, Dundee, NY 14837.

Anna Meyerhoff, NYCAMH bilingual farm safety educator, will deliver farm safety training from 1:00 PM to 2:30 PM. Topics will include pesticides, tractors, food safety, heat & hydration, sharp tools and what to do in an emergency. After the safety session, WPS-Worker pesticide safety training will be offered using EPA-approved materials. Growers will receive a copy of the training roster for their safety records. The sessions will focus on vineyard and orchard workers, though any workers who wish to receive safety training in Spanish are welcome.

There is no cost for the workshop, but please call Cornell Cooperative Extension of Yates County at (315) 536-5123 to let us know how many people will be attending, in order to help us provide enough chairs and supplies. Please contact Caroline Boutard-Hunt at cb239@cornell.edu or (315) 536-5123 if you have questions.

Northern Grapes Webinar



Growing Grapes without Glyphosate

March 17, 2020, 1:00 PM Eastern Time (12:00 PM Central Time)

Lynn Sosnoskie

Assistant Professor – Cornell University
Cornell AgriTech Campus
Geneva, NY

Lynn started as an assistant professor working in Weed Ecology and Management of specialty crops at Cornell AgriTech in September of 2019. Since completing her Ph.D. at Ohio State, she has served in research and extension positions in Wisconsin, Georgia, Washington, and California. Her research primarily focuses on glyphosate-resistant Palmer amaranth and the biology, ecology, and management of bindweed.

Glyphosate is a broad-spectrum, postemergence-applied, systemic (phloem-mobile) herbicide. It was first synthesized in 1950 (Cilag) and patented as a chelator in 1964 (Stauffer Chemical; its herbicidal properties were identified in 1970 (Monsanto Company) who marketed it under the trade name 'Roundup' in 1974. In 2010, more than 700 glyphosate-based products were available across multiple markets. Glyphosate targets the 5-enolpyruvyl-3-shikimate phosphate synthase (EPSPS) enzyme which is involved in the generation of aromatic amino acids, auxin, lignin, and other secondary products. The evolution of glyphosate resistance (47 species worldwide) and varying public perception about the active ingredient has encouraged some producers to seek alternative strategies for weed control. This includes increased adoption of physical and cultural tools, as well as the use of substitute herbicides. Depending on the weed spectrum involved, multiple preemergence and postemergence products may be needed to achieve desirable levels of weed suppression. This webinar will (1) review non-chemical control options for weeds and (2) describe the modes and sites of action, selectivity, and application timing of other herbicides registered for use in grapes. This presentation will also detail the factors that can positively and negatively impact the performance of alternatives and discuss strategies to maximize their efficacy; specific attention will be directed towards the management of difficult-to-control species, such as perennials, that have been historically targeted by glyphosate applications. The last part of the seminar will describe the differences in signal words, PPE requirements, days-to-harvest, and reentry intervals between glyphosate-based herbicides and available chemical alternatives.

Registration: You need to pre-register to attend. Registrants will receive a link and reminder 1-2 days before the presentation.

Register at: https://cornell.zoom.us/webinar/register/WN_J9bduHTSOSQo3ocwu9wmA

Please address any questions to: rjw256@cornell.edu

swnyteam@cornell.edu

Cornell Cooperative Extension

Southwest NY Dairy, Livestock and Field Crops Program

swnydlfc.cce.cornell.edu



A partnership between Cornell University and the CCE Associations in these five counties: Allegany, Cattaraugus, Chautauqua, Erie, and Steuben.

CORE Pesticide Training & NYSDEC Exam

Pre-Exam Training and Test to Become a Certified Pesticide Applicator

CORE PESTICIDE TRAININGS

- PRE-REGISTER 3 DAYS PRIOR TO DESIRED EVENT -

Register by calling: Kelly Bourne at 585-268-7644 ext. 10 or email at klb288@cornell.edu or sign up online at: <https://swnydlfc.cce.cornell.edu/events.php>

For event information contact: Josh Putman, Field Crops Specialist, at 716-490-5572 or jap473@cornell.edu.

Workshop cost: \$20/person

Checks payable to: SWNYDLFC

Pay by card through online registration.

Please plan to bring your own lunch as it will NOT be provided.

Training classes will be held on:

Thursday, March 26, 2020 from 8:30AM - 12PM

CCE-Chautauqua @ JCC-Carnahan Center
241 James Avenue
Jamestown, NY 14702

Thursday, April 2, 2020 from 8:30AM - 12PM

CCE-Steuben
20 East Morris Street
Bath, NY 14810

THE CERTIFICATION EXAM

Will be administered following each training from 1PM-4PM by DEC to qualified applicants.

Fee for the exam is \$100.

Checks or money orders payable to **NYSDEC** the day of the exam.

To register for the exam, or for exam related questions, please contact:

Rob Freese (Jamestown event) at 716-851-7275 or Chris Wainwright (Bath event) at 607-622-8264.

You MUST pre-register for the exam!

All participants will need to have the most recent CORE manual and applicable category manuals.

**CORE and category training manuals are available through the Cornell Store by calling (800) 624-4080 or visiting: <http://store.cornell.edu/c-876-manuals.aspx>

3.0 Pesticide recertification credits in the CORE category have approved

Participants looking to receive their applicators license must have experience working on their own farm, or through employment on another farm. **Participants must register directly with DEC to take the exam!**

If you have any questions on exam eligibility they will be answered by DEC representatives.

This training DOES NOT qualify for the 30 hour pre-test commercial training.

The SWNY Dairy, Livestock & Fields Crops Program offers educational programming and research based information to agricultural producers, growers, and agribusinesses. Cornell Cooperative Extension is an employer and education recognized for valuing AA/EEO, Protected Veterans, and Individual with Disabilities and provides equal program and employment opportunities. For accommodations, please contact Josh Putman 716-490-5572 or jap473@cornell.edu at least one week prior to the event.

Additional Information

Become a fan of the [Finger Lakes Grape Program on Facebook](#), or follow us on [Twitter \(@cceflgp\)](#) as well as YouTube. Also check out our website at <http://flgp.cce.cornell.edu>.

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

Finger Lakes Grape Program Advisory Committee

Eric Amberg- Grafted Grapevine Nursery
Bill Dalrymple- Dalrymple Farm
Matt Doyle- Doyle Vineyard Management
Eileen Farnan- Barrington Cellars
Chris Gerling- Cornell University Extension
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Cornell Cooperative Extension Finger Lakes Grape Program

Hans Walter-Peterson—Team Leader
Donald Caldwell—Viticulture Technician

The Finger Lakes Grape Program is a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extension Associations in Ontario, Seneca, Schuyler, Steuben, Wayne and Yates Counties.

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