Cornell Cooperative Extension Finger Lakes Grape Program

July 8, 2020

Finger Lakes Vineyard Update

In the Vineyard

In This Issue:

Leaf pulling has become a fairly standard practice in vineyards with vinifera cultivars planted on some form of VSP trellis. Despite the dry conditions we continue to experience this year, most mature vineyards in the Finger Lakes are showing little in the way of drought stress, with canopies continuing to fill in and reach beyond the upper wires.

While disease pressure has remained relatively low so far, pulling leaves in more humid production regions like the Finger Lakes still makes sense in order to increase the exposure of the clusters, thereby improving exposure to sun, wind and pesticide sprays. Pulling leaves earlier in the season also helps to prevent sunburn later on in the year, as opposed to exposing the clusters later in the year when temperatures are even higher.

Most growers focus their leaf pulling on the east side of the canopy, in order to promote better drying from dews and moisture and to intercept morning sun. Pulling on the west side varies quite a bit, from minimal pulling to prevent fruit exposure to the hottest temperatures in the afternoon, to almost full removal of the basal leaves to further increase sun and air exposure and chemical penetration to the clusters. This decision is generally guided by the characteristics of the site and the cultivar. For instance, we know that improving exposure in red Bordeaux varieties like Cabernet Franc early in berry development can reduce the amount of methoxypyrazines that develop in the clusters before veraison, and thus have lower levels at harvest. At the same time, greater sun exposure of Riesling fruit can increase levels of 1,1,6,-trimethyl-1,2-dihydronapthalene (otherwise known as TDN), which is the compound that lends the kerosene aroma that can be found in Riesling wines.

In addition of having some benefits in the current season, improving sun exposure on next year's buds, which are currently in development, will increase the number of cluster primordia (tissues that will become clusters) within the buds.

Before (left) and after (right) leaf removal to improve light exposure and air movement around clusters.

In the Vineyard (continued from page 1)

The use of VSP training systems in moderate or vigorous vineyards in the Finger Lakes will almost always necessitate leaf pulling in order to get fruit adequate exposed in order to properly ripen. However, using divided canopies such as Scott Henry can reduce the need for the practice. By training some of the shoots down, the fruit zone and the leaves that would fill it are spread out over a larger area, meaning there are fewer leaves in the same region as the clusters. In these vines, there is much less need for leaf pulling because the fruit is fairly well exposed already.

Positioning a portion of the shoots downward helps to open up the fruit zone to light and air movement without pulling many leaves.

Vertically-divided training systems can solve some major problems in grape production, like improving fruit exposure and increasing yields while maintaining good quality. But the systems aren't perfect by any means. There is a fairly short window when the lower tier of shoots can be positioned downwards (the shoots here in the photo are trained down using a wire) without breaking them. It also makes later season weed control (if needed) more difficult, whether using chemical or mechanical means, with actively growing shoots in the area where the weeds are also. But they can be one potential solution where dense canopies are a regular occurrence and the variety is suited for using such systems.

Much of the focus of canopy management research has been on *vinifera* cultivars, but more studies are being done recently looking at the impacts of these practices on the fruit of interspecific hybrids as well. For instance, we know that increasing fruit exposure in Traminette will increase the development of important aroma compounds (just as it does in its parent, Gewürztraminer), and seems to increase the production of rotundone in Noiret, which is the compound responsible for the black pepper aroma in that variety. The challenge with leaf pulling in hybrids is that they are often trained on high-wire or 'umbrella' systems, which tend to have a less concentrated fruit zone which makes it more difficult to pull leaves to improve exposure without defoliating a significant portion of the canopy. A more practical method of improving fruit exposure might be to shoot thin in these cultivars rather than pull leaves.

We have a short video that summarizes the potential benefits of the practice and some things growers need to consider when deciding whether or not it is worth investing in the labor or equipment to do so. You can find it at https://www.youtube.com/watch?v=iROxQFIQ31k.

Pest Management

Powdery Mildew Resistance to Strobilurins Confirmed in Finger Lakes Vineyards
Katie Gold - Cornell AgriTech, and Hans Walter-Peterson – FLGP

Late last summer, our program and David Combs at Cornell AgriTech collected leaf samples from several vineyards around the Finger Lakes and sent them to Tim Miles, plant pathologist at Michigan State, to see if the powdery mildew colonies on the leaves were resistant to FRAC11 fungicides, which consists of the strobilurins that many growers have used over the years (e.g., Abound, Flint, part of Pristine and Luna Sensation). These samples were collected as part of the FRAME Network project, a multi-state effort focused on fungicide resistance, primarily in powdery mildew. The project is led by Dr. Michelle Moyer, who spoke at this year's B.E.V. NY conference about the project.

The Miles Lab at Michigan State identified FRAC 11 (also known as strobilurin or QoI) resistant powdery mildew in the samples submitted from vineyards in Seneca, Yates, and Ontario counties. These samples were collected from Chardonnay, Pinot Noir, Niagara, and Concord vines. In this pool, 100% of all within-block samples were identified as QoI resistant. Guidelines from the FRAME Network indicate that under these conditions, there are two recommended paths forward for growers in these counties:

1. If you DID NOT have control problems last season, you can still use FRAC 11 fungicides for powdery mildew control *in tank mix with other fungicide only.*
2. If you DID have control problems last season, you should NOT rely on FRAC 11 fungicides for powdery mildew control any longer.

Additionally, it is recommended that all growers who suspect they may have resistance should check their sprayer calibration and droplet size, application volume, and deposition. Consider shortening application interval and slowing tractor speed (while adjusting calibration accordingly). To receive more specific advice for managing potential FRAC 11 resistance in your vineyards, consider participating in the **MSU Great Lakes FRAC 11 Resistance Survey.**

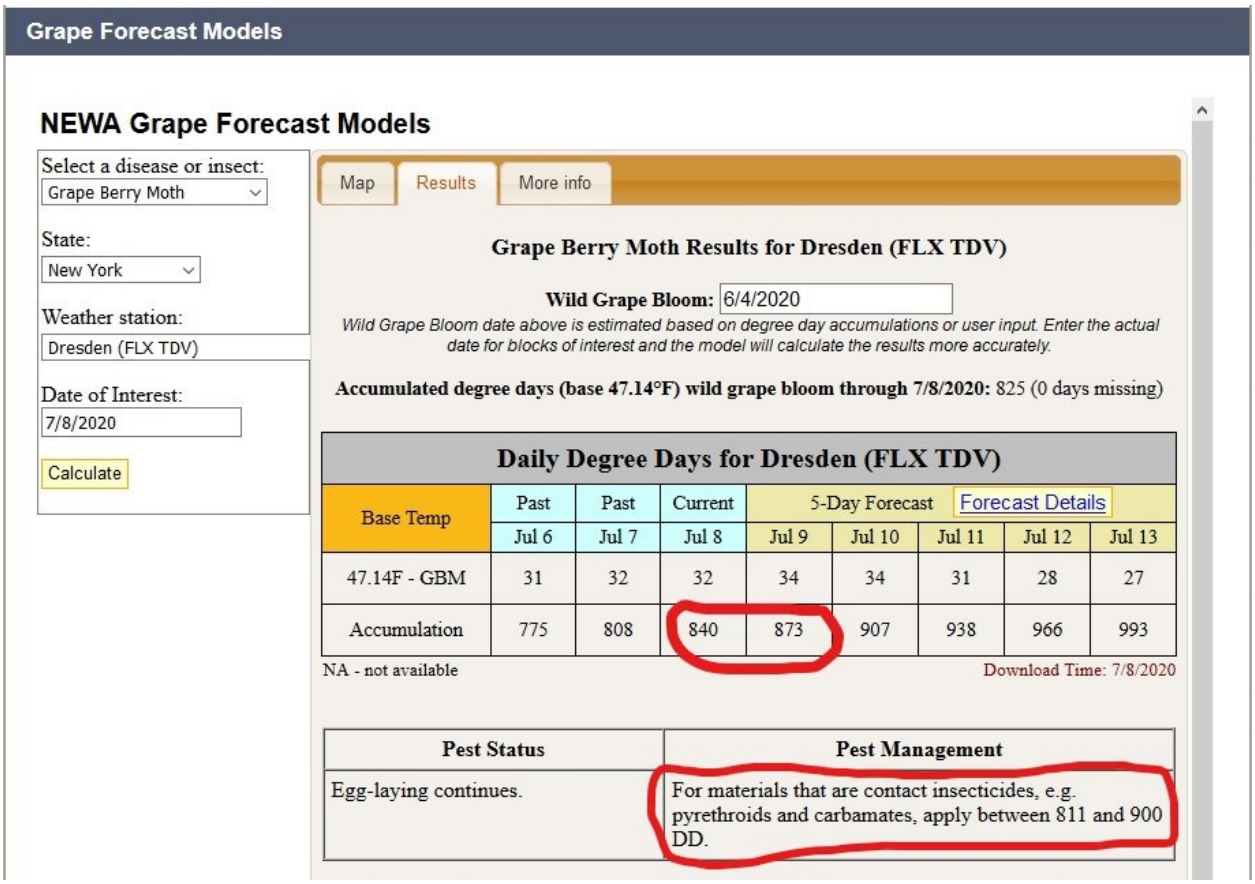
MSU Great Lakes FRAC 11 Resistance Survey: The Gold Lab at Cornell is aiding the Miles Lab at MSU in collecting powdery mildew samples from vineyards **anywhere in NY state** for a Great Lakes region survey for FRAC 11 resistance. Any grower in NY can get their vineyard's powdery mildew populations tested for FRAC 11 resistance for free by MSU as part of this survey. If you are interested in providing a sample, please contact Nancy Sharma, a plant pathology graduate student with the Miles Lab, at sharm115@msu.edu. You will receive a kit to test your grape powdery mildew samples in your vineyard. The samples will then be sent in a provided overnight mailer back to MSU. Nancy will provide you with a detailed procedure for sample collection. Katie Gold and the regional viticulture CCE associates will provide assistance to NY growers in interpreting their results and developing a resistance management plan moving forward. More information can be found at the following link: https://www.canr.msu.edu/news/grapevine-powdery-mildew-fungicide-resistance-survey

Pest Management (continued from pg.3)

The Gold and Miles Labs are collaborating on a similar Great Lakes downy mildew FRAC 40 resistance survey (FRAC 40 includes Revus, Revus Top and one-half of Zampro). Stay tuned for information on this survey and how to provide samples from Katie Gold and your regional CCE associate over the next few weeks.

Grape Berry Moth Model Status

The grape berry moth (GBM) model is indicating that warmer sites in the Finger Lakes are in the window for insecticide applications to be made if scouting indicates the need for one (6% of clusters examined showed signs of injury). Our vineyard in Dresden is currently around 840 GDDs, and therefore would need to be sprayed by tomorrow to have the best chance of controlling GBM if it were necessary (fortunately it isn't right now). Once a site has passed 810 GDDs, contact materials like Sevin, Danitol, Leverage 360 are the better option to use up until the model reaches 900 GDDs.



Grape Forecast Models

NEWA Grape Forecast Models

Select a disease or insect: Grape Berry Moth

State: New York

Weather station: Dresden (FLX TDV)

Date of Interest: 7/8/2020

Calculate

Map | Results | More info

Grape Berry Moth Results for Dresden (FLX TDV)

Wild Grape Bloom: 6/4/2020

Wild Grape Bloom date above is estimated based on degree day accumulations or user input. Enter the actual date for blocks of interest and the model will calculate the results more accurately.

Accumulated degree days (base 47.14°F) wild grape bloom through 7/8/2020: 825 (0 days missing)

Daily Degree Days for Dresden (FLX TDV)

Base Temp	Past Jul 6	Past Jul 7	Current Jul 8	5-Day Forecast Jul 9	Jul 10	Jul 11	Jul 12	Jul 13
47.14F - GBM	31	32	32	34	34	31	28	27
Accumulation	775	808	840	873	907	938	966	993

Forecast Details

NA - not available

Download Time: 7/8/2020

Pest Status	Pest Management
Egg-laying continues.	For materials that are contact insecticides, e.g. pyrethroids and carbamates, apply between 811 and 900 DD.

Pest Management (continued from page 4)

Cooler locations with less than 800 GDDs should be scouting for GBM injury now before they reach the 810 GDD threshold to determine if any spray is needed soon.

NEWA Location	GBM Model GDDs on July 8*	Date projected to reach 900 GDDs
Branchport	774	July 13
Dundee	825	July 11
Hammondsport	733	July 14
Interlaken	807	July 11
Lodi	789	July 12
South Bristol	701	July 15-16 (estimated)
Watkins Glen	789	July 12

* Based on model's auto-generated biofix dates

Rainfast Characteristics of insecticides in fruit

Precipitation can impact the performance of insecticides on fruit crops, but some compounds resist wash-off.

John Wise, Michigan State University Extension, Department of Entomology - June 18, 2019

The rainfall events experienced in Michigan have prompted questions about the relative "rainfastness" of the insecticides used in fruit production. In 2006, AgBioResearch provided funds to purchase and install a state-of-the-art rainfall simulation chamber at the Trevor Nichols Research Center (TNRC), after which Michigan State University Extension has conducted trials on fruit crops for a range of insecticides.

There are several critical factors that influence impact of precipitation on a pesticide's performance. First is the plant-penetrative attributes of the various compounds. Some pesticide chemistries, like organophosphates, have limited penetrative potential in plant tissue, and thus are considered primarily as surface materials. Some compounds, such as carbamates, oxadiazines and pyrethroids, penetrate plant cuticles, providing some resistance to wash-off. Many newer compounds, such as spinosyns, diamides, avermectins and some Insect Growth Regulators (IGR), readily penetrate plant cuticles and have translaminar movement in leaf tissue. Others, like the neonicotinoid insecticides, are systemic and can have translaminar (moves from top surface to bottom of leaf) as well as acropetal movement in the plant's vascular system (moves from center to growing tips of leaves). Penetration into plant tissue is generally expected to enhance rainfastness of pesticides.

The second factor is the inherent toxicity of an insecticide to the target pest and the persistence of the compound in the environment. In some cases, a compound may be susceptible to wash-off, but its environmental persistence and inherent toxicity to the target pest compensates for the loss of residue, thus delaying the need for immediate re-application.

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Rainfast Characteristics of insecticides in fruit (continued from page 5)

The third factor is the amount of precipitation. In general, organophosphate insecticides have the highest susceptibility to wash-off from precipitation, but following light rainfall their high field-rate toxicity to most target pests overcomes the necessity for immediate re-application. Neonicotinoid insecticides are moderately susceptible to wash-off with residues that have moved systemically into plant tissue being highly rainfast, and surface residues less so. Carbamate, IGR and oxadiazine insecticides are moderately susceptible to wash-off and vary widely in their toxicity to the range of relevant fruit pests. Diamide, spinosyn, avermectin and pyrethroid insecticides have proven to be moderate to highly rainfast on most fruit crops.

For most insecticides, a drying time of two to six hours is sufficient to "set" the compound in or on the plant. With neonicotinoids, for which plant penetration is important, drying time can significantly influence rainfastness. For neonicotinoids, up to 24 hours is needed for optimal plant penetration, thus the time proximity of precipitation after application should be considered carefully. Spray adjuvants, materials intended to aid the retention, penetration or spread on the plant, can also improve the performance of insecticides.

Based on results from current studies, the following charts have been developed to serve as a guide for general rainfastness characteristics and re-application recommendations for certain insect pests (also printed in the "2019 Michigan Fruit Management Guide," E0154). Note that these recommendations should not supersede insecticide label restrictions or farm-level knowledge based on site-specific pest scouting, but rather are meant to compliment a comprehensive pest management decision-making process.

Rainfastness rating chart: General characteristics for insecticide chemical classes

Insecticide class	Rainfastness ≤ 0.5"		Rainfastness ≤ 1.0"		Rainfastness ≤ 2.0"	
	Fruit	Leaves	Fruit	Leaves	Fruit	Leaves
Organophosphates	Low	Moderate	Low	Moderate	Low	Low
Pyrethroids	Moderate/ High	Moderate/ High	Moderate	Moderate	Low	Low
Carbamates	Moderate	Moderate/ High	Moderate	Moderate	Low	Low
IGRs	Moderate	Moderate/ High	Moderate	Moderate	Low	Low
Oxadiazines	Moderate	Moderate/ High	Moderate	Moderate	Low	Low
Neonicotinoids	Moderate, Systemic	High, Systemic	Low, Systemic	Low, Systemic	Low, Systemic	Low, Systemic
Spinosyns	High	Moderate	High	Moderate	Moderate	Low
Diamides	High	High	High	Moderate	Moderate	Low
Avermectins	Moderate, Systemic	High, Systemic	Low, Systemic	Moderate, Systemic	Low	Low

Highly rainfast = ≤ 30% residue wash-off

Moderately rainfast = ≤ 50% residue wash-off

Low rainfast = ≤ 70% residue wash-off

Systemic = Systemic residues remain within plant tissue

Rainfast Characteristics of insecticides in fruit (continued from page 6)

Grape insecticide precipitation wash-off re-application decision chart. Expected Japanese beetle control in juice grapes, based on each compound's inherent toxicity to Japanese beetle adults, maximum residual and wash-off potential from rainfall.						
Insecticides	Rainfall = 0.5 inch		Rainfall = 1.0 inch		Rainfall = 2.0 inches	
	*1 day	*7 days	*1 day	*7 days	*1 day	*7 days
Imidan	Sufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue
Sevin	Sufficient insecticide residue	Sufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue
Brigade	Sufficient insecticide residue	Insufficient insecticide residue	Sufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue
Actara	Sufficient insecticide residue	Insufficient insecticide residue	Sufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue
Avaunt	Sufficient insecticide residue	Insufficient insecticide residue	Sufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue	Insufficient insecticide residue

*Number of days after insecticide application that the precipitation event occurred.

"Insufficient insecticide residue" = Insufficient insecticide residue remains to provide significant activity on the target pest, and thus re-application is recommended.

"Sufficient insecticide residue" = Sufficient insecticide residue remaining to provide significant activity on the target pest, although residual activity may be reduced.

Insecticide persistence, plant penetration and rainfastness rating			
Compound class	Persistence (residual on plant)	Plant penetration characteristics	Rainfast rating
Organophosphates	Medium - Long	Surface	Low
Carbamates	Short	Cuticle Penetration	Moderate
Pyrethroids	Short	Cuticle Penetration	Moderate - High
Neonicotinoids	Medium	Translaminar & Acropetal	Moderate
Oxadiazines	Medium	Cuticle Penetration	Moderate
Avermectins	Medium	Translaminar	Moderate
IGRs	Medium - Long	Translaminar	Moderate
Spinosyns	Short - Medium	Translaminar	Moderate - High
Diamides	Medium - Long	Translaminar	Moderate - High

Originally published at https://www.canr.msu.edu/news/rainfast_characteristics_of_insecticides_on_fruit and revised by the FLGP to remove references to other crops except grapes.

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Statewide herbicide resistance screening: Help us to help you!

Weeds compete with crops for light, water, and nutrients, which can result in yield reductions. Weeds can also interfere with crop production by serving as alternate hosts for pests and pathogens, providing habitat for rodents, and impeding harvest operations. Consequently, growers employ a variety of control strategies, including the application of herbicides, to manage unwanted vegetation. Although herbicides can be extremely effective at controlling undesirable plants, failures can and do occur. Weeds may escape chemical treatments for many reasons including the evolution of herbicide resistance.

Worldwide, there are 512 confirmed cases (species x site of action) of herbicide resistance. With respect to the United States, 165 unique instances of resistance have been documented. In New York, there are only four formally reported occurrences; these include common lambsquarters (*Chenopodium album*), smooth pigweed (*Amaranthus hybridus*), common ragweed (*Ambrosia artemisiifolia*) and common groundsel (*Senecio vulgaris*). All were described as being insensitive to the photosystem II inhibitors (e.g. atrazine and simazine).

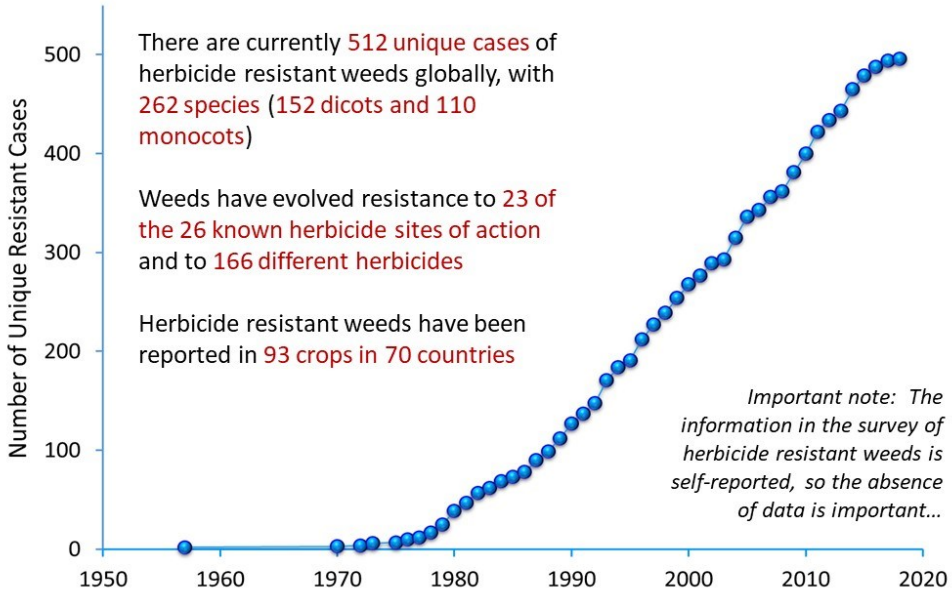
This, however, does not reflect the current on-the-ground situation in the state; work done by Drs. Julie Kikkert (CCE) and Robin Bellinder (Cornell) indicates resistance to linuron in some populations of Powell amaranth (*Amaranthus powelli*). Recent studies by Drs. Bryan Brown (NYS IPM) and Antonio DiTommaso (Cornell) suggest that horseweed (*Conyza canadensis*) and waterhemp (*Amaranthus tuberculatus*) populations may be resistant to one or more herbicide active ingredients. Pennsylvania has nine reported cases of herbicide resistance including glyphosate resistance in Palmer amaranth (*Amaranthus palmeri*), which was recently identified here in NY. While it is tempting to believe that herbicide resistance is a hallmark of agronomic cropping systems, resistance can and has developed in orchards, vineyards, vegetable crops, pastures, and along roadsides.

Beginning in 2020, we will undertake a screening effort to describe the distribution of herbicide resistance in the state. This coming summer and fall, growers, crop consultants and allied industry personnel who suspect they have herbicide resistance are encouraged to contact Dr. Lynn Sosnoskie (lms438@cornell.edu, 315-787-2231) to arrange for weed seed collection. Indicators of possible herbicide resistance include:

- Dead weeds intermixed with live plants of the same species.
- A weed patch that occurs in the same place and continues to expand, yearly.
- A field where many weed species are controlled but a previously susceptible species is not.
- Reduced weed control that cannot be explained by skips, nozzle clogs, weather events, herbicide rate or adjuvant selection, and calibration or application issues.

Growers can take several actions to stop the spread of herbicide resistant weeds and to prevent the development of new ones. First and foremost is scouting fields following herbicide applications and keeping careful records of herbicide performance to quickly identify weed control failure. Pesticide applicators should ensure that their equipment is properly calibrated and that they are applying effective herbicides at appropriate rates to manage the target species. Whenever possible, diversify herbicides to reduce chemical selection pressures that result from the repeated use of a single herbicide or site of action. If possible, incorporate physical and cultural weed control practices into a vegetation management plan. Be sure to control unwanted plants when they are small and never allow escapes to set seed. Clean equipment to prevent seeds of herbicide-resistant weed species from moving between infested and non-infested sites and harvest areas with suspected resistant populations, last.

Statewide herbicide resistance screening: Help us to help you! (continued from page 8)



Current status of herbicide resistance, globally, over time according to the International Survey of Herbicide Resistant Weeds (www.weedscience.org)

Online Pesticide Recertification Credit Courses

Due to the coronavirus pandemic, so much of our life has moved into the "virtual" space of online meetings, happy hours, and more. This includes virtually (see what I did there?) all of our extension meetings this year, including those that offer pesticide recertification credits. One of the benefits of having these meetings online is that growers can attend other meetings besides just the ones that are relatively easy to drive to in order to earn more credits, or just to get more information about good pest management practices.

In addition to our own Tailgate meetings held every other Tuesday (next one will be on July 21), there are some other opportunities for Finger Lakes growers to earn pesticide credits if they want/need them. Private pesticide applicators need to earn at least 10 credits over the 5 year span of their license, with a minimum of 25% (2.5 credits) in the specific category they are certified in (for grape growers, that's Category 22). The other 75% can be credits in categories other than 22, or core credits. Core credits count for all license categories (private and commercial), but there is no specific requirement to earn a certain amount of core credits for recertification. In other words, if you earn all 10 credits in Category 22, that satisfies the requirement for recertification.

Here are a few other 'virtual' meetings being held soon that are offering pesticide credits (some require a registration fee):

Lake Erie Regional Grape Program

Our colleagues with the LERGP hold weekly Coffee Pot meetings on Wednesday mornings from 10:00 am – 12:00 pm. Growers can earn 1 credit for attending each meeting. To register for the Coffee Pot meetings, visit https://cornell.zoom.us/meeting/register/tJYpdeyoqD8uE9LvZWrt3eNpaol4r7BSFRUx

Online Pesticide Recertification Credit Courses

CORE Pesticide Applicator Training

Tuesday, July 14, 2020, 9:00 - 10:45 AM

Tuesday, July 21, 2020, 6:00 - 7:45 PM (repeated program)

Cornell Cooperative Extension's Southwest New York Dairy, Livestock, and Field Crops Program (SWNYDLFC) will be offering a virtual training opportunity for agricultural producers to learn more about safely using pesticides on their farm. The cost to register for the training is $20/person, and registration is available by visiting http://swnydlfc.cce.cornell.edu/events.php.

If you would like more information, please call Josh Putman at 716-490-5572 or email jap473@cornell.edu.

The following courses are available anytime online through the Pesticide Management Education Program's (PMEP) Distance Learning Center for $30.00 each.

Implementing NEWA into a Vineyard IPM Strategy outlines how the Network for Environment and Weather Applications (NEWA), along with scouting and spray records, can be used when troubleshooting problems with a vineyard IPM strategy. This course is approved for 1 recertification credit for New York State certified pesticide applicators in categories 1a and 22.

Management of Grape Berry Moth discusses the importance of grape berry moth (GBM) as a pest, its life cycle, development and implementation of the GBM Risk Assessment, GBM management options, and an overview of the GBM model on NEWA. This course is approved for 1 recertification credit for New York State certified pesticide applicators in categories 1a and 22.

Spotted Lanternfly - Understanding its Ecology and the Threat presents information on this new, invasive pest and the potential damage it can cause to forests, agriculture, tourism, and quality of life. Topics include spotted lanternfly identification, biology, distribution, and current monitoring and management strategies. This course is approved for 1 recertification credit for New York State certified pesticide applicators in categories 1a, 2, 3a, 9, 10, 22, and 25 and for 0.5 recertification credit in category 6a.

You can see the other online courses offered by PMEP at their Distance Learning Center, located at https://pmepcourses.cce.cornell.edu/

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.

Food Industry Virtual Office Hours

Thursday, July 9, 2020 4:00 pm to 5:00 pm (EDT)

Join us for our weekly Q&A and facilitated discussions during our *Food Industry Virtual Office Hours* to address questions on COVID-19. Speak directly to subject matter experts in sanitation, epidemiology, microbiology, virology, food safety culture, business continuity and the food safety of dairy foods, fresh fruits and vegetables, and processed foods and beverages.

Do you have a question for the panel but do not want to ask it live? You can submit questions in advance:

1) When you register,
2) Anonymously on the IFS@CU website (instituteforfoodsafety.cornell.edu/content/submit-question-virtual-office-hours), or
3) Via email (mail to: foodsafety@cornell.edu)

Visit the IFS@CU's website (instituteforfoodsafety.cornell.edu/coronavirus-covid-19/virtual-office-hours) to learn more about upcoming sessions.

Intended audience: Open to anyone in the food industry from farm to fork.

Cost: Free

Registration required: https://cornell.zoom.us/meeting/register/tJ0udumtqTstGNTCa5StO4V4evS_dVlVa0K1

After registering, you will receive a confirmation email with information to join the session.

Subject matter experts on the panel

Dr. Sam Alcaine, *Assistant Professor*

Dr. Elizabeth Bihn, *Senior Extension Associate*

Dr. Olga Padilla-Zakour, *Professor*

Mr. Rob Ralyea, M.S. *Senior Extension Associate*

Dr. Aljosa Trmcic, *Extension Associate*

Dr. Martin Wiedmann, *Gellert Family Professor in Food Safety*

Dr. Randy Worobo, *Professor*

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.

Tuesday Timely Topcis: Winemaking Topic TBD

July 14, 2020 *4:30 – 5:30 PM*

Speakers: *Chris Gerling, Enology Extension, Cornell AgriTech;*
Misha Kwasniewski, Penn State University

Enologists Chris Gerling (Cornell) and Misha Kwasniewski (Penn State) will discuss some important winemaking topics that we're sure will be fascinating.

If you have not registered for the Tuesday Timely Topics series of webinars, register at: https://cornell.zoom.us/meeting/register/tJAuf--tpjgiGdQdY3QLFP1g2FHWDfxCbkkp

FLGP Virtual Tailgate Meeting
July 21, 2020 *4:30 – 6:00 PM*

Join FLGP viticulturist Hans Walter-Peterson (and the occasional guest speaker) for any or all of this year's Tailgate Meetings, held every other Tuesday afternoon during the 2020 growing season. These meetings feature a free-flow discussion of what's been happening in vineyards, timely reminders about important practices, and updates on some of the applied research being done in grapes this year. Tailgate Meetings have been approved for 0.75 NY pesticide recertification credits.

Register for this year's online Tailgate Meetings at
https://cornell.zoom.us/meeting/register/tJwvc-6qpjoiHtS5I2AQssfPXzXe_iKnx4f7

ENOCERT 101 Certification Course: Basic Viticulture & Enology*

(Formerly New Grower/New Winery Workshop) (NEW Online format!)

August 18-19, 2020 *Register Here!*

This course will feature synchronous sessions from 9:00 AM - 12:00 PM on August 18 and August 19. There will also be pre-recorded lectures that can be viewed on your own time.

Overview: This course will cover the basics of grape growing from the ground up. Through live interactive lectures, participants will understand how vineyard site, climate, and trellising systems impact grape production and quality. Participants will also expand their understanding of production steps for specific wine types. Upon completing this course, attendees will learn how different wine types (white, red, rosé, sparkling) are produced, and the key decisions that need to be made to influence wine style.

2020 GDD & Precipitation

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	**Hi Temp (F)**	**Lo Temp (F)**	**Rain (inches)**	**Daily GDDs**	**Total GDDs**
7/1/2020	80.2	63.2	0.00	21.7	885.4
7/2/2020	90.8	62.3	0.00	26.6	912.0
7/3/2020	84.1	70.7	0.00	27.4	939.4
7/4/2020	84.5	64.9	0.00	24.7	964.1
7/5/2020	89.3	62.1	0.00	25.7	989.8
7/6/2020	91.3	66.1	0.00	28.7	1018.5
7/7/2020	91.6	68.7	0.00	30.2	1048.6
Weekly Total			**0.00”**	**184.9**	
Season Total			**6.54”**	**1048.6**	

GDDs as of July 7, 2019: 933.3

Rainfall as of July 7, 2019: 11.35”

Seasonal Comparisons (at Geneva)

Growing Degree Days

	2020 GDD [1]	Long-term Avg GDD [2]	Cumulative days ahead (+)/behind (-) [3]
April	12	63.8	-23
May	261.5	254.4	-3
June	543.1	480.2	+1
July	185.9	643.6	+ 4
August		592.2	
September		358.3	
October		110.0	
TOTAL	1002.4	2502.6	

[1] Accumulated GDDs for each month.

[2] The long-term average (1973-2019) GDD accumulation for that month.

[3] Numbers at the end of each month represent where this year’s GDD accumulation stands relative to the long-term average. The most recent number represents the current status

Precipitation

	2020 Rain [4]	Long-term Avg Rain [5]	Monthly deviation from avg [6]
April	2.54”	2.83”	-0.29”
May	1.30”	3.16”	-2.16”
June	1.44”	3.60”	
July	0.01”	3.42”	
August		3.23”	
September		3.53”	
October		3.42”	
TOTAL	5.29”	23.19”	

[4] Monthly rainfall totals up to current date

[5] Long-term average rainfall for the month (total)

[6] Monthly deviation from average (calculated at the end of the month)

COVID-19 Resources

Need information? View the following Cornell CALS and CCE Resource Pages Updated Regularly

General Questions & Links:

https://eden.cce.cornell.edu/

Food Production, Processing & Safety Questions:

https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/

Employment & Agricultural Workforce Questions:

http://agworkforce.cals.cornell.edu/

Cornell Small Farms Resiliency Resources:

https://smallfarms.cornell.edu/resources/farm-resilience/

Financial & Mental Health Resources for Farmers:

https://www.nyfarmnet.org/

Cornell Farmworker Program

www.farmworkers.cornell.edu

www.trabajadores.cornell.edu (en espanol)

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!

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.

flgp.cce.cornell.edu

YouTube

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