Cornell Cooperative Extension
Lake Erie Regional Grape Program

PennState Extension

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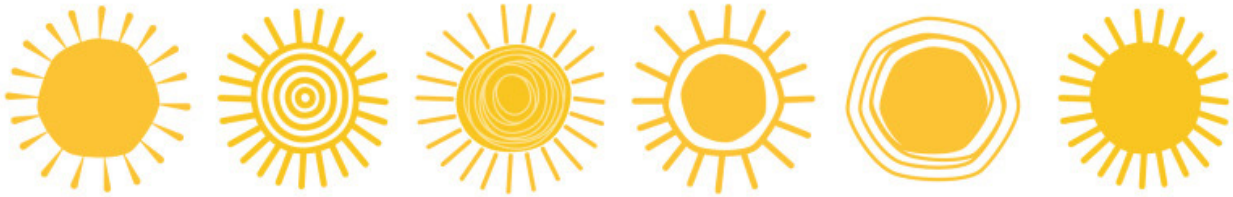

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Click here to watch Podcasts

The Lake Erie Regional Grape Program is a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extensions in Chautauqua, Erie and Niagara county NY and in Erie County PA.

Upcoming Events

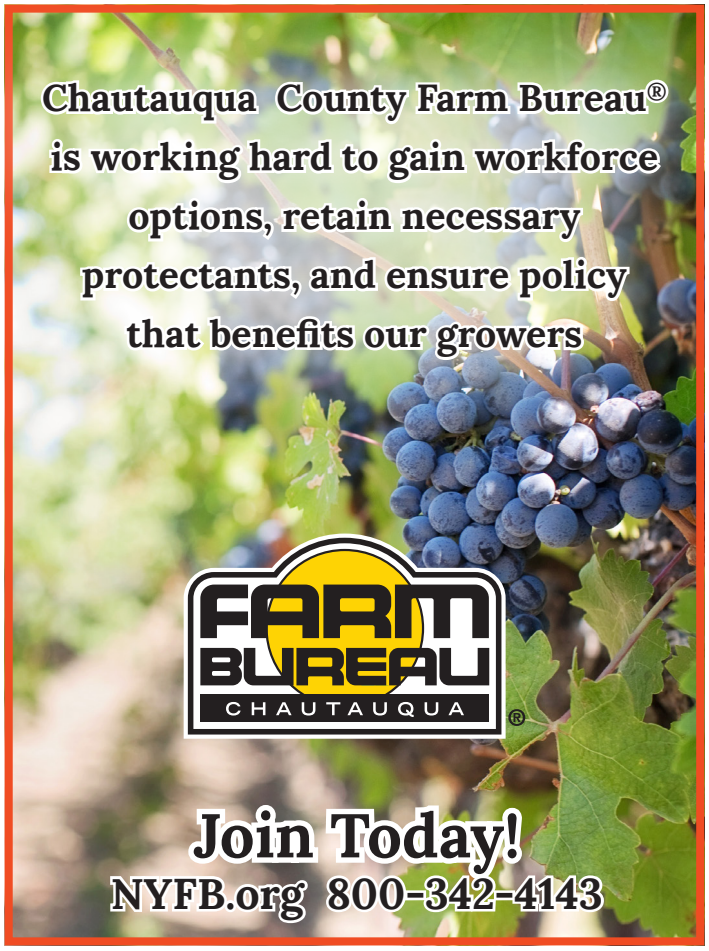
July 10, 2024
NO COFFEE POT MEETING

July 17,2024
10:00am- Coffee Pot Meeting
Chateau Niagara Winery
2466 West Creek Rd. Newfane, NY 14108

July 24, 2024
10:00am- Coffee Pot Meeting- Demo Day at CLEREL
6592 West Main Rd. Portland, NY 14769

July 31, 2024
10:00am- Coffee Pot Meeting
Mason Farms
8603 West Lake Rd.Lake City, PA 16423

July 31st, 2024
4:00pm -Gravel Pit Park Annual Chicken BBQ
10300 West Main St. North East, PA 16428
Please register- see details on the next page



Free Event hosted by the Erie Horticulture Society

Gravel Pit Park Annual Chicken BBQ

PDA (1 core, 1 cat) and DEC Credits Offered

Presentation topics:

- Grape disease management update
- Viticulture research and best practices
- Spotted lanternfly update
- Injectable insecticide best practices

When: July 31, 2024
(4:00 PM-7:00 PM)

Where: Gravel Pit Park
10300 W. Main St.
North East, Pennsylvania
16428

Register Online
Or Call:
(716) 792-2800
ext. 201

Equipment Show
Vendor Booths
BBQ Chicken Dinner at 6pm

Contact Megan Luke
(716) 397-9674 for more information

Cornell Cooperative Extension

PennState Extension

You can register by scanning the QR code with your smartphone or calling Katie at 716-792-2800- ext 201

Business Management

Andrew Holden, Business Management Educator, Penn State University, LERGP

Buying Cover Crop Seed

Last month's cover crop field day showed us the effects that continued cover can have in a vineyard. From better moisture holding capacity, draining ability, and compaction mitigation, planting cover crops can provide your operation many benefits. Just as July has come so quickly, it will soon be time to plant cover crops in the vineyards. Those looking to plant an effective cover crop this August are encouraged to price and purchase cover crop seed soon, if they have not already done so. For those still looking to purchase, consider these questions to help make sure you are mitigating your cover crop input cost.

- What is your budget per acre you would spend on cover cropping?
  - Consider time and fuel spent to plant and terminate, in addition to the cost of seed
- What are your goals with said cover crop?
  - Erosion, nitrogen, green mulch, weed suppression, etc.
  - Seed selection and cost will vary depending on what goals you have for the cover. Historically legumes are more expensive than grasses, but legumes can help fix nitrogen
- Where will you purchase cover crop seed from?
  - Call multiple dealers to find best price for your specific need as prices can vary significantly
- Are there any programs available to help cover cost?
  - Cost assistance for Cover Crops:

In New York the Environmental Quality Incentives Program or EQIP can help pay for a portion of you establishment/seed cost. While not currently available, other NY grants aimed at water quality and soil erosion may be available during other months of the year for future projects.

In Pennsylvania, growers can use EQIP, as well as the PA VinES (Vested in Environmental Sustainability) that offers up to 85% coverage of conservation practices, including cover crops. Learn more about PA VinES here: https://www.erieconservation.com/pavines. Pennsylvania also has the Small Business Advantage Grant that can be used for reducing runoff and pays up to $8,000 depending on location and need.

Please contact me with any questions on these grants or other possible funding assistance. Contact info is on page 2.

Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

In the Vineyard

Happy 4th of July Week! I do hope that you and your families get to find some time to enjoy each other, our nation's independence, and relax for a bit. With that said, it is hard to believe that we are already in July. It is time to do your crop estimation and information to guide you through that is below. You should also be thinking about your cover crop plans for the end of this month or early August, please reach out if you have questions. After this week, we only have three more Coffee Pot Meetings left for the year.

On July 17th, we will be in Niagara County and Dr. Katie Gold, Cornell Grape Pathologist, will be joining us in person. This is a great opportunity to ask questions and have facetime with Dr. Gold to get your concerns heard and relay your concerns over loss of chemistries, resistance issues, and sustainability. July 24th is in Chautauqua County at Cornell Lake Erie Research and Extension Laboratory for our Grower Demo Day. Dr. Terry Bates will be walking us through our mechanized demonstration blocks and there will also be opportunities to chat with growers that have made modifications to equipment to better serve their operations. Finally on July 31st, we will finish our series in Erie County, PA, at Mason Farms and there is also the Erie Horticultural Society Meeting at Gravel Pit Park that evening. Please do not miss these great opportunities to learn and meet with your fellow growers. We hope to see you there!

2024 LERGP Coffee Pot Meeting Schedule:
July 10, 2024 NO COFFEE POT MEETING
July 17, 2024 10:00AM Chateau Niagara Winery; 2466 West Creek Rd, Newfane NY
July 24, 2024 10:00AM Grower Demo Day at CLEREL; 6592 W. Main Rd, Portland NY
July 31, 2024 10:00AM Mason Farms; 8603 West Lake Rd, Lake City PA

Per requests from the Coffee Pot Meetings, I am including the link to the Crop Estimation and Thinning Table to assist you in your efforts, Grape Berry Moth Model on the NEWA network, and to the Spray Slides that Bryan Hed has prepared to help you make research-based decisions, see below:
Click Here for the Grape Berry Moth Model on the NEWA network

Concord Crop Estimation Guide

Collecting a little bit of information from the vineyard during the growing season can greatly improve your prediction of final yields with better accuracy than the eyeball method. Know your Bloom Date, Space Between Vines, and Space Between Rows. Calculate how many vines equate to 1/100th of an acre and know how many Days After Bloom (DAB) samples were collected.

Example:

- **Row and Vine Spacing.** If 9' between rows the table provides the 1/100th acre calculation for you which equals **48.4 feet**.
- How many vines are in **48.4** feet if vines are spaced **8** feet apart? **48.4/8=6.05 vines (round**

down to 6)

- **Use Spatial Map to direct Sample locations to capture vineyard variation.**
- **Clean Pick Fruit from Calculated 1/100th Acre (In this example it equals 6 vines form 48.4/8).** Clean pick fruit from 2 vines from high vigor zone, 2 vines from medium vigor, and 2 vines from low vigor.
- **Total Weight of lbs of Fruit Collected.** Weigh each sample taken above, be sure to subtract the weight of the bucket or bin used from total weight. Sum weights from all 6 samples to get total weight.

- **Consult Table to Find Corresponding Crop Estimation.**

Mechanical Crop Estimation

Cut a length of rope to guide your sampling lengths, lay it down along the row, clean pick with the harvester the length of the rope, weigh lbs of fruit collected. Walk behind afterwards to assess how many grapes are still on the vine/or that are on the ground.

Using the chart:

Once you have the sample, the chart does the rest of the work for you. Follow the corresponding DAB down and the respective weight over and you have the estimated tons/acre at harvest. For example, let's say it's July 25th or 40 DAB (bloom on June 15th) and the fruit weighs 100 pounds. Crop estimated 8.3 ton/acre potential crop.

Click here for a pdf of this information.

Crop Estimation and Thinning Table

Table 1.Concord Crop Estimation Guide and Thinning Table

Dr. Terry Bates: Crop Estimation and Thinning Table: 7/16/2003

	Time of Season														
	20DAB			25DAB		30DAB		40DAB	50DAB		Veraison				Harvest
	% of Final Berry Weight														
Pounds of Fruit Removed in 1/100th of an Acre	20	25	30	35	40	45	50	55	60	65	70	75	80	90	100
10	2.5	2.0	1.7	1.4	1.3	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5
20	5.0	4.0	3.3	2.9	2.5	2.2	2.0	1.8	1.7	1.5	1.4	1.3	1.3	1.1	1.0
30	7.5	6.0	5.0	4.3	3.8	3.3	3.0	2.7	2.5	2.3	2.1	2.0	1.9	1.7	1.5
40	10.0	8.0	6.7	5.7	5.0	4.4	4.0	3.6	3.3	3.1	2.9	2.7	2.5	2.2	2.0
50	12.5	10.0	8.3	7.1	6.3	5.6	5.0	4.5	4.2	3.8	3.6	3.3	3.1	2.8	2.5
60	15.0	12.0	10.0	8.6	7.5	6.7	6.0	5.5	5.0	4.6	4.3	4.0	3.8	3.3	3.0
70	17.5	14.0	11.7	10.0	8.8	7.8	7.0	6.4	5.8	5.4	5.0	4.7	4.4	3.9	3.5
80	20.0	16.0	13.3	11.4	10.0	8.9	8.0	7.3	6.7	6.2	5.7	5.3	5.0	4.4	4.0
90	22.5	18.0	15.0	12.9	11.3	10.0	9.0	8.2	7.5	6.9	6.4	6.0	5.6	5.0	4.5
100	25.0	20.0	16.7	14.3	12.5	11.1	10.0	9.1	8.3	7.7	7.1	6.7	6.3	5.6	5.0
110	27.5	22.0	18.3	15.7	13.8	12.2	11.0	10.0	9.2	8.5	7.9	7.3	6.9	6.1	5.5
120	30.0	24.0	20.0	17.1	15.0	13.3	12.0	10.9	10.0	9.2	8.6	8.0	7.5	6.7	6.0
130	32.5	26.0	21.7	18.6	16.3	14.4	13.0	11.8	10.8	10.0	9.3	8.7	8.1	7.2	6.5
140	35.0	28.0	23.3	20.0	17.5	15.6	14.0	12.7	11.7	10.8	10.0	9.3	8.8	7.8	7.0
150	37.5	30.0	25.0	21.4	18.8	16.7	15.0	13.6	12.5	11.5	10.7	10.0	9.4	8.3	7.5
160	40.0	32.0	26.7	22.9	20.0	17.8	16.0	14.5	13.3	12.3	11.4	10.7	10.0	8.9	8.0
170	42.5	34.0	28.3	24.3	21.3	18.9	17.0	15.5	14.2	13.1	12.1	11.3	10.6	9.4	8.5
180	45.0	36.0	30.0	25.7	22.5	20.0	18.0	16.4	15.0	13.8	12.9	12.0	11.3	10.0	9.0
190	47.5	38.0	31.7	27.1	23.8	21.1	19.0	17.3	15.8	14.6	13.6	12.7	11.9	10.6	9.5
200	50.0	40.0	33.3	28.6	25.0	22.2	20.0	18.2	16.7	15.4	14.3	13.3	12.5	11.1	10.0

Row Spacing determines length of 1/100th of an acre
10.0 feet row spacing = 43.5 feet = 1/100th of an acre
9.5 feet = 45.9 feet = 1/100th of an acre
9.0 feet = 48.4 feet = 1/100th of an acre
8.5 feet = 51.2 feet = 1/100th of an acre
8.0 feet = 54.45 feet = 1/100th of an acre
7.5 feet = 58.1 feet = 1/100th of an acre

Calculation
43, 560 square feet per acre
Divide by row spacing and then
divide by 100 to get 1/100th of an acre

Example:
A grower has 9 foot row spacing and clean picks 48.4 feet at 25 days after bloom. The fruit weighs 80 pounds and the grower estimates that the berries are between 35% and 40% of final berry weight. According to the table, the crop estimate is between 10.0 and 11.4 tons per acre.

Disclaimer:
This table gives the relationship between time of season and % final berry weight on an average year. Year to year variability in weather related berry growth adds error to this table. Information on current year berry growth can be obtained from the Fredonia Vineyard Lab (or) it is strongly suggested that individual growers start collecting berry weight information from their own individual vineyard blocks.

Table 2. Options for powdery mildew sprays provided by Bryan Hed, PSU

Options for powdery mildew control:

Chemical class/product FRAC		PHI
Quintec	13	21
Succinate dehydrogenase inhibitors: Luna Experience, Luna Sensation, Aprovia/Aprovia Top, Pristine, Endura, Miravis Prime	7	14-21
Vivando, Prolivo	50	14
Gatten	U13	14
Sterol inhibitors: Rally, Elite,Orius, Rhyme, Mettle, Tebuzol Tebustar, Inspire Super,Revus/Aprovia/Quadris Top, Luna Experience, Topguard EQ, Viticure, Procure, Cevya, etc	3	14
Strobilurins: Flint, Sovran, Abound...NOT RECOMMENDED!!! Quadris Top, Pristine, Luna Sensation....	11	14
Torino	U6	3, 7
Polyoxin D zinc salt (OSO, PH-D)	19	0
Copper	-	0
Biorationals/Biologicals (Serenade, Regalia,etc)		?
Oils (JMS Stylet,etc)	-	?
Bicarbonates (Armicarb, Kaligreen, etc)	-	?
Sulfur	-	?

Table 3. Spray options for Downy Mildew control from Bryan Hed, PSU

Options for downy mildew control:

Chemical class/product	FRAC	PHI
Mancozeb products (Manzate, Penncozeb, Dithane, etc)	-	66
Gavel	22	66
Ridomil Gold/Copper, MZ	4	42, 66
Ranman	21	30
Ziram	-	21
Revus, Revus Top	40	14
Strobilurins: Flint, Sovran, Abound, Azaka, Quadris, Quadris Top, Pristine, Reason, Luna Sensation	11	14
Zampro	40,45	14
Captan	-	0
Copper	-	0
Phosphorus acid: Prophyt, Phostrol, Fosphite, Rampart, Reveille, etc.	33	0

Table 4. Bryan Hed's What to Use When suggestions for a spray program

What to use, when?....a basic framework for Concord

• 3-5" shoots: inflorescences/leaves = Phom = mancozeb (mz), captan

• 8-12" shoots: inflorescences/leaves = Phom, blkrot; mz, captan, ziram
- pmildew = oils, Sterol Inhibitor (SI)

• Immediate pre bloom and first post bloom: critical for fruit protection from **ALL DISEASES** *- pmildew = Endura, Gatten, Cevya (which also controls black rot), Quintec, Vivando - blkrot = mz (pre bloom only), ziram, captan (pre bloom only), an SI - Phom = mz (pre bloom only), captan (pre bloom only), ziram - dmildew = mz (pre bloom only), captan (pre bloom only), ziram, phos acid, Reason*

• Second post bloom: early July - leaf pmildew = Torino, Quintec, Vivando, Cevya (which also controls black rot), Endura, older SI, copper/lime
- fruit blkrot = SI, ziram
- fruit Phom = ziram
- leaf dmildew = ziram, phos acid, copper/lime

• Third post bloom: mid to late July...
-Phom/blkrot are non-issues if well controlled until now - leaf pmildew = Torino, Quintec, Vivando, Cevya (which also controls black rot), Endura,
older SI, HrvstMore, , copper/lime, Nutrileaf, Nutrol
- leaf dmildew = ziram, phos acid, copper/lime

• Fourth post bloom: early August to veraison
- leaf pmildew= HrvstMore, copper/lime, NutriLeaf, Nutrol
- leaf dmildew = ziram, phos acid, copper/lime

PA Update

Bryan Hed, Research Technologist, Lake Erie Grape Research and Extension Center

Weather: At our location by the lake, we finished up the month of June with 587 growing degree days (gdds) and 4.67 inches of precipitation: Much warmer and wetter than our average over the past 25 years. At end of June we had accumulated about 1059 gdds since April 1.

Phenology: At 3-4 weeks past Concord bloom, Concord berries are no longer susceptible to powdery and downy mildew. However, cluster stem tissue may retain some susceptibility to downy mildew for another week or two, especially for Niagara and Catawba, enabling this disease to remain a threat to crop loss in susceptible juice grapes. Concord/Niagara berries will be susceptible to black rot until about the middle of July.

Diseases: Rainfall on June 26 and 29, created conditions for black rot, downy mildew and Phomopsis infections to occur. That first and second post bloom spray should have provided protection from this.

Powdery mildew: At this point in the season, powdery mildew does not require rainfall for infections and epidemic development…so every day is a powdery mildew infection period, from now until harvest. For juice grapes, like Concord and Niagara, our focus for controlling powdery mildew now switches from protecting fruit to protecting leaves. For spray decisions regarding powdery mildew on leaves of juice grapes, research at Cornell has shown that *in most years*, lightly cropped Concord vines will benefit little from continued control measures against powdery mildew, once fruit are resistant (now). Conversely, Concord vines with above average to large crops will likely benefit from continued efforts to control powdery mildew, to keep canopies operating at maximum fitness and ensure that you reach minimum sugar standards by harvest. The more the crop is above average in size, the more likely continued protection of leaves from powdery mildew will provide 'real' benefits toward a successful harvest. Note the use of the term above, "*in most years"*: if conditions turn poor for ripening (cloudy and wet), all bets could be off, meaning that *extra sprays were just not enough to ripen that monster crop before harvest*.

Juice grape growers do not have to apply "top notch" materials at this time but could resort to a Nutrol (plus surfactant), a Harvest-More (not a fungicide, but will add a little potassium and control mildew by about 30%), a copper/lime spray, a tebuconazole product (which will provide modest control of powdery mildew but add great black rot protection too). **For really large crops**, you could also *continue to use* more effective products like Quintec, Cevya, or Endura, but make sure you rotate FRAC groups and do not use any one of these more than twice per season. A tank mix of Nutrol or Harvest-More with these latter materials would help to delay the development of resistance to them.

Sensitive hybrids and *Vitis vinifera* are another story; you will need to protect fruit of these varieties against powdery mildew until at least 4 weeks after bloom. Materials like Aprovia/Aprovia Top, Miravis Prime, Gatten, Endura, Quintec, or Luna Experience, will continue to provide excellent control of powdery mildew. Just be sure you rotate FRAC groups each time. A tank mix with sulfur is also highly recommended for sulfur tolerant wine varieties.

Black rot: Black rot infections that developed from the rainfall periods during the first 9 days of June, are fully expressed and observable now. Fruit are still susceptible to black rot until mid-July

(Concord/natives) to late July (*Vitis vinifera*). If you currently see leaf and/or fruit infections (from infection periods in May and early June), know that *there is the potential for more fruit infections from rainfall we had on June 29!!* Fruit rot symptoms from this infection period should become observable before the middle of July. Mancozeb, Ziram, and the FRAC 11 materials are highly effective against this disease, but only if applied before infection. Captan is weaker. **If you scout for black rot and you are seeing it on your leaves and/or fruit (from May and early June infection periods) AND you feel your crop was unprotected during rainfall on June 29, your best option is a sterol inhibitor fungicide (FRAC 3). Most of these materials have excellent 'reach back' activity and will 'snuff out' black rot infections IF applied within 3-5 days after an infection period (within 3-5 days of June 26).** You don't have to use anything expensive to achieve post infection control of black rot: a tebuconazole product (Tebustar, Tebuzol, etc) will work just fine for this disease (though tebuconazole is NOT providing much powdery mildew control these days). Cevya, Mettle, Rally, Rhyme, and the difenoconazole products (not on Concord) will also achieve great post infection control.

Downy mildew: As mentioned above, Niagara clusters will still retain some susceptibility to downy mildew infections through the cluster stems, for probably another week or two beyond the end of direct fruit susceptibility (until about the second week in July?). Heavy rain last Saturday likely resulted in a 'resurrection' of downy mildew, so stay vigilant if you're growing a susceptible variety (any vinifera and sensitive hybrids, Niagara and Catawba). Copper/lime, Revus/Revus Top (not on Concord), Phosphorous acid products, Ranman, Ridomil MZ and Copper, and Zampro are all very effective. Ziram will provide some protection from downy mildew but is not as effective as mancozeb or captan. Ridomil and the phos acids have post infection activity that will help control the disease after an infection period…however we do not recommend you use these materials in this way. I also do not recommend reliance on FRAC 11 materials, like strobilurins (Abound, Sovran, Flint) or Reason, for control of this disease; its likely there is downy mildew resistance to these fungicides in your vineyard.

Bunch rot: For premium wine varieties, leaf removal in the fruit zone at this time, by machine or by hand, generally provides significant reductions in bunch rot on rot susceptible wine varieties (Riesling, Vignoles, Pinot noir and gris, Chardonnay, etc). Leaf removal can also improve fruit quality and may even reduce manual harvest costs (the clusters are easier to see and remove if you're hand harvesting).

Also, a Botrytis specific fungicide application at 'just before bunch closure' on tight cluster varieties, is recommended. Fortunately, we have a number of chemical control options that are quite effective against this fungus that I have listed below according to the FRAC (Fungicide Resistance Action

Committee) group that each product belongs to. Basically, FRAC groups are fungicide chemistries with the same or similar mode of action, so that pathogen resistance to one fungicide is going to confer cross resistance to another, within that same FRAC group. For example, Vangard and Scala are in the same FRAC group, 9. This means that if a population of Botrytis in a vineyard has developed resistance to the active ingredient in Vangard, then it will also be resistant to the active ingredient in Scala, even though the active ingredients may be different (cyprodinil in Vangard and pyrimethanil in Scala). The mode of action (the way in which the fungicide disrupts a specific metabolic pathway in the fungus, killing it) of these two chemistries is the same, or similar enough that pathogen resistance to one chemistry will confer resistance to the other.

Here are the FRAC groups available for control of Botrytis.

- FRAC group 2: Rovral, 7 day pre-harvest interval
- FRAC group 7: Endura, 14 day pre-harvest interval
- FRAC group 7 (and 3, which is not for Botrytis): Luna Experience, 14 day pre-harvest interval
- FRAC group 7 and 11: Pristine, 14 day pre-harvest interval
- FRAC group 9: Vangard, Scala, 7 day pre-harvest interval
- FRAC group 9 (and 3, which is not for Botrytis): Inspire Super, 14 day pre-harvest interval
- FRAC group 9 and 12: Switch, 7 day pre-harvest interval
- FRAC group 11: Flint, 14 day pre-harvest interval. Intuity, 10 day pre-harvest interval
- FRAC group 17: Elevate, 0 day pre-harvest interval

PA Update

Megan Luke, Penn State Extension Viticulture and Tree Fruit Educator

Update: Comments on cancellation of ziram CLOSED as of July 1st. The comment period regarding label changes to captan has been extended: comments are now due by July 31st 2024: You have more time to contribute to the discussion!

Ziram- On April 30th the EPA released an update on the status of Ziram as well as a response to the comments garnered during the last public comment period. As of the date listed, they have NOT changed their stance on the cancellation of ALL registered uses for this chemistry. A final public comment period is currently open, and all impacted growers are encouraged to leave a comment or reach out to commodity groups, processors, Farm Bureau reps, etc. who may be organizing a formal response. This is the last stage of the process prior to the label receiving a federal stamp suspending use after a 12-month grace period for product to move out of the commerce pipeline.

Review current status using this link: Ziram docket comments

Read response to previous comments: here

Captan- Additionally, captan has been added to the review process and docket. It doesn't look like we are at risk of losing this chemistry, the EPA is proposing increased PPE, a closed-cab requirement for air-blast applications, a reduced rate/application/season, and a few other label changes.

Comment on changes to the captan label: here

Read proposed label changes: here

*Relevant information starts on page 44 of the downloaded document

Insect and scouting update

Continue to keep watch for rose chafer in areas with sandy soils. Grape cane gall maker (*Ampeloglypter* sp.) is active at this time, if it has become problematic in the past, this is the time where control should be applied. While the weevil rarely causes crop damage, the galls can weaken canes and cause damage in newly planted vines and cause breakage on newly trained canes. If you are training up new vines after freeze damage this pest can be particularly damaging.

Most areas have reached the 810-degree day marker for grape berry moth- check out Kim Knappenberger's article for more information on NEWA models regarding this pest.

Grape cane gall maker and grape cane girdler (*Ampeloglypter* sp.) Gall maker weevils (*Ampeloglypter sesostris*) are reddish-brown adults: small 3 mm long insects with a distinctive curved snout (Figure 1). Except for their color they look similar to the shiny-black adults of the grape cane girdler, (*Ampeloglypter ater)* (Figure 2). Both species overwinter in the adult stage in debris on the ground.

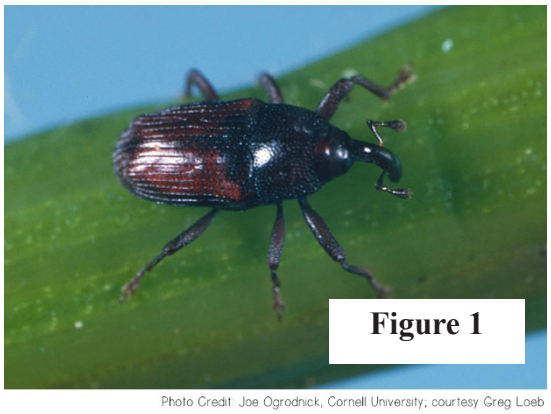


Figure 1

Photo Credit Joe Ogrodnick, Cornell University, courtesy Greg Loeb

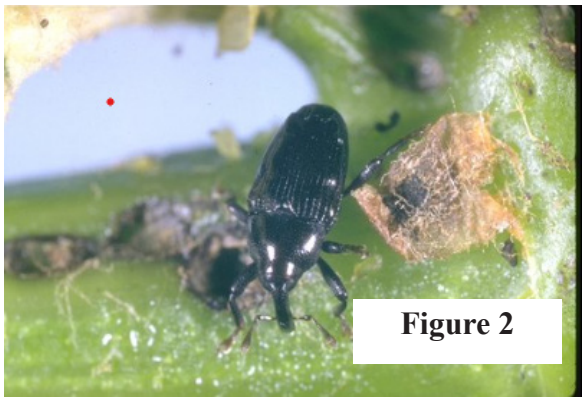


Figure 2

Photos courtesy of Cornell IPM, Joe Ogrodnick and Greg Loeb

Rose Chafer – (*Macrodactylus subspinosus* Fabricius) Adult beetles are about ½ inch long, have a light brown body coloration and long, spiny legs (Figure 3). Sandy soils between the Lake Erie shore and Route 5 are particularly prone to hosting this pest. Scouting for this pest should be conducted daily, if possible, but at a minimum of 3 times/week and should continue for about 2 weeks after bloom. Infested areas can lose extensive numbers of flower clusters if beetles are not detected early and treated. If a threshold of 2 beetles per vine is reached an insecticide application is recommended.

Figure 3

Adult rose chafer. Photo by Lorraine Berkett, University of Vermont

Continue scouting for noxious or problematic weeds, as many species are easier to deal with in their early stages before producing extensive root systems or reseeding. Be sure to mow or apply herbicide to problem areas **before** the weeds enter their flowering period in order to reduce the number of seeds produced for next season! Take time to familiarize yourself with invasive weed species and their management strategies, as best practices vary significantly by species. Field bindweed and Japanese knotweed populations can be increased through cultivation, herbicide burndown is ineffective for deep-rooted perennial weeds like Canada thistle. Identifying pests correctly will impact the best management techniques.

Friendly reminder to be aware of your rotation of chemistries throughout the growing season:

As most of you have made ***at least*** three pesticide applications at this time, it is important to rotate your chemicals to avoid resistance in pest populations. While most of you are familiar with the terms resistance and rotation, it's good to understand what these terms mean in practice.

Resistance- The ability of a pest or pathogen to survive application of a pesticide. Resistance increases in a pest population when the same chemistry is used repeatedly. Resistance renders specific products ineffective against the pest.

Rotation- The practice of frequently changing the type of chemical used for control of a specific pest or pathogen to reduce resistance.

Mode of action (MOA)- This is the method that a specific product uses to kill a pest. Every pesticide on the market has a code for the mode of action. When you rotate your products, you should choose products with different modes of action. The standard recommendation is to rotate between three products with different modes of action. When a pest population becomes resistant to a specific product, it is likely to be resistant to **all** products with that mode of action.

Modes of action for fungicides can be found here: FRAC

Modes of action for insecticides can be found here: IRAC

Modes of action for herbicides can be found here: HRAC

If you suspect that a specific material is losing its effectiveness in your vineyard, contact us to assess your program. Spray tank pH, spray coverage, and tank mix contents can play a role in the effectiveness of a spray application. In the case of true resistance, it is important to document cases so that research can be conducted into how widespread an issue may be. Catching resistant pest populations early is critical to retaining the effectiveness of our chemistries, please help us guide the research accordingly!

Contact information:

Mobile (*call or text*): (716) 397-9674 (*preferred*)

Office: (814) 825-0900

Email: MFL5873@psu.edu

We need your DOWNY MILDEW infected leaves!

In **2023**, in **PA Lake Erie Region**, high rates of Downy Mildew resistance were found to:

- **stobilurins** (Abound)
- **carboxylic acid amides** (Revus)
- **phosphorous acid** (Rampart)

Resistance!

Many samples showed resistance to *all three* fungicides. No resistance to phenylamides (Ridomil) was detected.

In 2024, NYWGF is funding a survey of New York Lake Erie region vineyards for fungicide resistance.

---NY Growers: contact us when **downy mildew is present in your vineyard** and we will come out to collect 10 or more infected, sporulating leaves. Isolates from the leaves will be grown in the lab to conduct bioassays and genetic testing to determine if resistance is present.

---You will receive information regarding the **percentage and types of resistance** present **on your farm**. A regional summary will be made available to all growers (farms sampled remain anonymous).

- **Contact *Bryan Hed at 814-725-4601 (bxh38@psu.edu) or Jessica Clippinger (jib5787@psu.edu)* or Jennifer Phillips Russo at *716-640-5350* to get samples collected or with questions. Thank you!**

Updates and Information

Kimberly Knappenberger, Extension Support Specialist, LERGP

Station	Wild Grape Bloom Date	GBM GDD 7/2/24	Forecast GBM GDD 7/7/24
Burt (NY Mesonet)	6/1/24	641	773
North Appleton	6/1/24	662	797
Newfane (Chateau Niag)	5/24/24	806	945
Ransomville	5/22/24	896	1040
Lockport	5/22/24	895	1037
Brant	5/20/24	944	1081
Versailles	5/20/24	897	1038
Sheridan	5/20/24	962	1102
Silver Creek (RT5)	5/23/24	845	987
Silver Creek (Double A)	5/20/24	962	1103
Hanover	5/22/24	865	1006
Forestville	5/22/24	866	1007
East Fredonia	5/22/24	856	997
Fredonia (NY Mesonet)	5/23/24	819	961
Brocton	5/22/24	855	993
Portland (CLEREL)	5/22/24	863	1000
Westfield (South)	5/22/24	875	1011
East Westfield	5/22/24	840	978
Westfield	5/23/24	831	964
East Ripley	5/21/24	928	1061
Ripley	5/22/24	887	1028
Ripley (State Line)	5/21/24	917	1060
Ripley (Escarpment)	5/22/24	854	996
North East (State Line)	5/22/24	851	986
North East Lab	5/22/24	880	1015
North East (Escarpment)	5/21/24	894	1028
North East (Side Hill)	5/22/24	855	989
Harborcreek Escarpment	5/23/22	804	943
Harborcreek	5/21/24	936	1078
Lake City	5/21/24	919	1061
Lake City (Mason Farms)	5/21/24	922	1063

**see next page for GBM detailed information

Females are active and egg-laying is at its peak.	Control measures should be timed to coincide with 810 DD in high risk vineyards. For materials that must be ingested, e.g. Intrepid, Altacor, it is important to get materials on as close to 810 DD as possible. For low and intermediate risk vineyards, scout between 750-800 DD for damage and apply control measures, timed to coincide with 810 DD, if more than 6% damaged clusters are found.
Egg laying continues.	For materials that are contact insecticides, e.g. pyrethroids and carbamates, apply between 811 and 900 DD.

If you ordered 2024 Pesticide Guideline books, they are available for pick up at CLEREL. I have tried to contact everyone but many books are still here. Give me a call to see if you have a guide waiting to be picked up. 716-792-2800 ext 201 Katie

2024
LERGP Coffee Pot Meeting Schedule

May 1, 2024 9:00am	**SLF Meeting- Burch Farms** **9210 Sidehill Rd. North East, PA 16428**
May 8, 2024 10:00am	**Sprague Farms** **12435 Versailles Rd. Irving NY 14081**
May 15, 2024 10:00am	**Brian Chess Farm** **10289 West Main Rd. Ripley NY 14775**
May 22, 2024 10:00am	**Schulze Vineyards & Winery** **2090 Coomer Rd. Burt, NY 14028**
May 29, 2024 10:00am	**Kirk Hutchinson** **4720 W. Main St. Fredonia, NY 14063**
June 5, 2024 10:00am	**LERGREC Field Day** **662 N. Cemetery Rd, North East, PA 16428**
June 12, 2024 10:00am	**Betts' Farm- Soil Health Day** **7366 East Route 20 Westfield, NY 14787**
June 19, 2024 10:00am	**NO COFFEE POT MEETING**
June 26, 2024 10:00am	**Zach & Alicia Schneider** **771 Bradley Rd. Silver Creek, NY 14136**
July 3, 2024 10:00am	**Liberty Winery** **2861 US Route 20 Sheridan, NY 14135**
July 10, 2024 10:00am	**NO COFFEE POT MEETING**
July 17, 2024 10:00am	**Chateau Niagara Winery** **2466 West Creek Rd. Newfane, NY 14108**
July 24, 2024 10:00am	**Grower Demo Day at CLEREL** **6592 West Main Rd. Portland, NY 14769**
July 31, 2024 10:00am	**Mason Farms** **8603 West Lake Rd. Lake City, PA 16423**

Questions? 716-792-2800 or kjr45@cornell.edu