Concords under a hazy sky
at CLEREL- Jennifer Phillips
Russo

CROP UPDATE
June 29, 2023

Cornell Cooperative Extension
Lake Erie Regional Grape Program

PennState Extension

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2023
LERGP Coffee Pot Meeting Schedule

May 3, 2023	**10:00am**	**Double A Vineyards** **10317 Christy Rd. Fredonia NY 14063**
May 10, 2023	**10:00am**	**Niagara Landing Wine Cellars** **4434 Van Dusen Rd. Lockport NY 14094**
May 17, 2023	**10:00am**	**John Schultz & Sons** **9510 Sidehill Rd. North East PA 16428**
May 24, 2023	**10:00am**	**Brian Chess Farm** **10289 West Main Rd. Ripley NY 14775**
May 31, 2023	**10:00am**	**Sprague Farms** **12435 Versailles Rd. Irving NY 14081**
June 7, 2023	**10:00am**	**NO COFFEE POT MEETING**
June 14, 2023	**10:00am**	**Betts' Farm** **7365 East Route 20 Westfield, NY 14787**
June 21, 2023	**10:00am**	**Paul Bencal Farm** **2645 Albright Rd. Ransomville NY 14131**
June 28, 2023	**10:00am**	**Gary Young Farm** **8401 Gulf Rd. North East PA 16428**
July 5, 2023	**10:00am**	**NO COFFEE POT MEETING**
July 12, 2023	**10:00am**	**Zach & Alicia Schneider Farm** **771 Bradley Rd. Silver Creek NY 14136**
July 19, 2023	**10:00am**	**NO COFFEE POT MEETING**
July 26, 2023	**10:00am**	**Westfield Ag & Turf** **7521 Prospect Rd. Westfield NY 14787**

In this copy:

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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.

REGISTER

Lake Erie Regional Grape Research and Extension Center Field Day

Join us to learn about the latest research and best practices for grape production in the Lake Erie Region

Free Event | Lunch Provided
PDA and NY DEC Core (2) and Category (2) Recertification Credits Available

Who is this for?

- Juice and wine grape growers
- Vineyard owners
- Wine producers
- Viticulture professionals
- Industry professionals

What will you learn?

- Best Practices for Pesticide Sprayer Calibration and Canopy Coverage
- Wine Grape Cultivar Considerations near Lake Erie and Viticulture
- Programming at Penn State
- Introduction to the MyEV Tool
- Update on Spotted Lanternfly
- Current Grape Disease Development and Management

When: July 6, 2023
(10:00 AM-2:00 PM)

Where: LERGREC
662 N. Cemetery Rd.
North East, Pennsylvania 16428

PennState Extension

Registration deadline: July 5, 2023

Cornell Cooperative Extension

REGISTER

NYFarmNet

1-800-547-3276 | www.nyfarmnet.org

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Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

In the Vineyard

One of the research projects that the Lake Erie Regional Grape Program is conducting is our Microclimate Sensor Phenology study. We have fifteen different grower collaborators in Chautauqua with five each located on the lake, the bench, and the escarpment. We monitored each site throughout the dormant season and are continuing the data collection through the entire growing season. Currently, we are using the MyEV data collector to track cluster development, nondestructively, by uploading photos of clusters at each location along with taking soil moisture readings undervine. We will also track berry size in the continuing weeks. The photos below are of clusters with different berry sizes from the lake, bench, and escarpment.

Photo 1. Photo of a Concord cluster located on the lakefront of Lake Erie in Chautauqua County, NY

We had great conversations this week at our Coffee Pot Meeting at Gary Youngs' in Erie County, PA. Our numbers for these interactive grower meetings have continued to increase over the past few years and the exchanges have led to grant funding to study topics that are a direct impact from grower input at Coffee Pot Meetings. I encourage you to attend as many as you can, not only for the credits, stimulating conversation, donuts, and coffee, but to share your strategies and concerns with fellow growers. At each meeting, I gather your questions and concerns and try to get you timely responses to share in the Crop Update the following day. Sometimes it takes a bit longer to address, but I will address them.

Photo 2. Photo of a Concord cluster located on the bench in Chautauqua County, NY

Photo 3. Photo of a Concord cluster taken on the escarpment of Chautauqua County, NY

For this week, we had discussion about labor and the changes to the H2A program and labor issues. This was also discussed in the previous week's Coffee Pot meeting in Niagara County as well. I invited Dr. Richard Stup, Senior Extension Associate,

Agricultural Workforce Specialist, Cornell Cooperative Extension School of Integrative Plant Science Horticulture Section, to join me on the Lake Erie Regional Grape Program's podcast, ***Between the Vines***, to address your questions. We had discussions on agricultural unionization and that we have no way to directly track how many union organizing campaigns are going on in New York State. And, as we know, the way things work in New York farm labor unions is that organizing can be done without the grower even knowing it, until the State notifies the grower that there's a union campaign, and that the organizers have 50% or more of the employees who've signed an authorization card.

There have been farms, both vegetable farms and dairy farms that Dr. Stup knows of in Western New York that are somewhere in the organizing process. Knowing that agriculture unionization is a possibility, what can a grower legally say or not say? Dr. Stup addressed my questions and discussed important acronyms for the Don'ts and Do's that each grower should be aware of should that happen in your organization. Once, you know organizing is in place, then you need to be careful about what you, as the owner, plus those that are hired managers out there and supervisors, say about the organization. Anyone who is even one step above a frontline worker needs to follow these rules. The Don'ts..that is an important thing to keep in mind; it's called T.I.P.S. Threats, Interrogation, Promises, and Surveillance. And the Do's, or F.O.E.s, which stands for Facts, Opinions, and Examples. Listen to our podcast for our entire conversation about agricultural unionization. Dr. Stup gave sound advice and many examples. For more information the following is an article that is linked to Agriculture Workforce Website can be found here: Click here for more information.

The next portion of the conversation turned to changes in the H2A program. There are two particular issues, and I want to say upfront, that these are very technical. They're very complex. That being said, it is the most important source right now of new labor employees to agriculture, because it's just so difficult to find people willing to work. We have had growers ask the questions about the changes in sharing contracts and forming a collaboration. Some employers are big enough that they can file on their own for H2A contracts, and they have enough work to keep people busy, either throughout the growing season or whatever makes sense. There are also those who wish to combine with other farms to share contracts and responsibilities make an application. Joint employer applications have become more popular; however, rules have changed.

There are some downsides to it, and one of the really important downsides is that there's a lot of rules with the H2A program. If you're in a joint employer relationship, you need to understand the business practices of your other partner(s). Because, if your partner breaks any of the rules and ends up getting a fine, then both employers are liable for that. So make sure that your partner is a good, trustworthy person that's going to follow all the rules.

Last year the US Department of Labor started to make some changes to several of the H2A rules and this joint employer role was one that they did make some changes in. The final rule was published on March 14, 2023, where USDA limited the hours that multiple employers can offer H2A employees. It's confusing and technical language, but basically says that no single employer within that joint employer group can offer more than 34 h in a week to any one employee or group of employees. So, if you have a week where you've got a lot of hours that you can offer and the plan is for this one employer to have the group of employees working there for 50 hours, you can't do it under a joint employer status anymore.

So what employers are doing who have used joint employer status in the past and they can't use

that joint employer status anymore due to restrictions, is that they started to switch to another kind of title of eligibility, which was called an Agricultural Association. It wasn't used very much in New York until just the last year or two, but it was used in other states. This agricultural association term was thought to be for bigger groupings, but as it turns out it can be for just small groupings of two or three growers going together and it doesn't have the restrictions on the hours that the joint employer status does.

If you are interested in learning more about how this status of agriculture association can be helpful to you and your organization, tune in to our podcast episode featuring Dr. Richard Stup called, T.I.P.S., F.O.E.s, and H2A woes. Jennifer talks labor with Dr. Richard Stup from Cornell Agricultural Workforce Development about agriculture unionization and changes in the H2A program.
Per requests from the Coffee Pot Meetings, I am including the link to the Grape Berry Moth Model on the NEWA network, the link to the Penn State University Business Management Educator position, 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
Click Here to Apply for the PSU Business Managment Educator Position

Table 1. 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 2. Spray options for Downy Mildew control from Bryan Hed, PSU

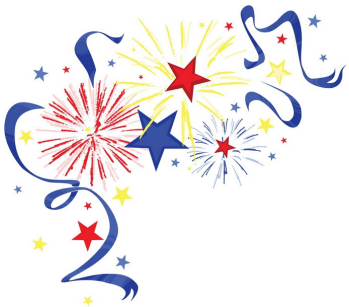
Options for downy mildew control:

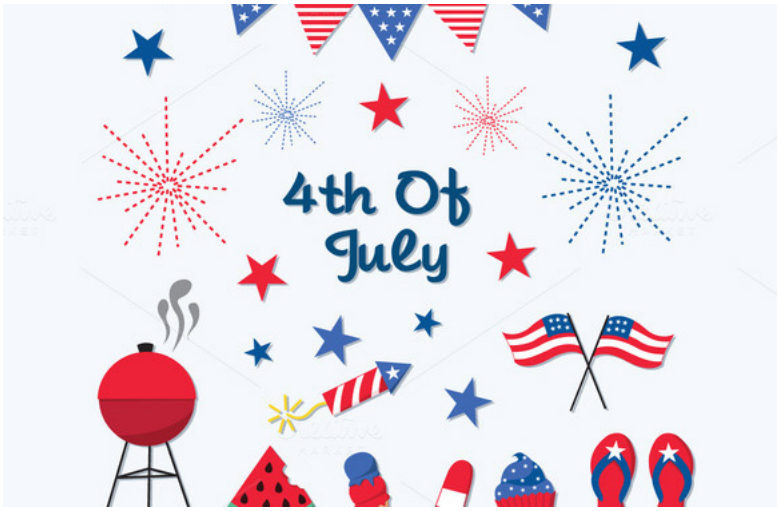
Chemical class/product	FRAC	PHI
Mancozeb products (Manzate, Penncozeb, Dithane, etc)	-	66
Gavel	22	66
Ridomil Gold/Copper, MZ	4	42, 66
Ranman	21	30
Ziram	-	21
Revus, Revus Top	40	14
Strobilurins: Flint, Sovran, Abound,Azaka, Quadris, Quadris Top, Pristine, Reason, Luna Sensation	11	14
Zampro	40,45	14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

Table 3. Bryan Hed's What to Use When suggestions for a spray program

What to use, when?....a *basic* framework (wine/juice)

- **3-5" shoots:** Phom = mancozeb (mz), captan, ziram
- **8-12" shoots:** inflorescences/leaves = Phom, blkrot, dmildew?; mz, captan, ziram,
  - pmildew = sulfur, stylet, Sterol Inhibitor (SI)
- **Immediate pre bloom/first post bloom:** critical for fruit protection from ALL DISEASES
  - pmildew = Endura, Gatten, Cevya, Aprovia/Apr,Revus Top, Luna Exp/Sens (new); Quintec, Vivando (old), Sulfur (tank mix partner)
  - blkrot = mz, captan (prebloom only; juice), ziram, an SI
  - Phom = mz, captan (prebloom only; juice), ziram
  - dmildew = mz, captan (prebloom only; juice), ziram, Revus, Ranman, Ridomil, phos acid, Gavel
- **Second post bloom: early July**
  - leaf + fruit pmildew = Torino, Quintec, Vivando, Cevya, Endura, Aprovia/Apr,Rev Top, Luna, SI, Sulfur
  - fruit blkrot = SI, mz, captan, ziram,
  - leaf/fruit Phom, dmildew = mz, captan, ziram, Revus, Ranman, Ridomil, Zampro, phos acid, copper
- **Third post bloom:** 3rd week in July…Phom/blkrot are non-issues if well controlled until now
  - leaf pmildew = Torino, Quin, Viv, Cevya, Endura, SI, sulfur, HrvstMore, Nutlf, Nutrol, Kbicarb, PolyD, etc
  - leaf dmildew = captan, ziram, copper, Revus, Zampro, Ranman,
- **Fourth post bloom:** early August to veraison
  - leaf pmildew= sulfur, HrvstMore, NutLf, Nutrol, Kbicarb, PolyD, etc
  - leaf dmildew= Revus, Ranman, phos acid, copper, captan





PA Update

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

Weather: We have accumulated about 393 growing degree days and 3.28 inches of rain over the past 4 weeks of June (cooler, but no longer drier than average). We have accumulated about 704 growing degree days as of April 1. The short-term forecast for North East PA has around a 50% chance of rain Friday through Monday, with highs around 80F.

Phenology: Here by the lake, we recorded 50% bloom for Concord on June 18-19, about 3-4 days behind our long-term average. Concord berries are currently about 4-6 mm in diameter.

Diseases: What a difference a week makes. Rain on Monday and Tuesday generated more infection periods for all the major diseases. Since fruit of all varieties are still susceptible to all the major diseases, make sure to keep up with your fungicide sprays.

Scouting here at our farm has revealed powdery mildew on unsprayed Concord and Chancellor clusters in check plots of our fungicide trials. So, powdery mildew is building. I'm not seeing it any earlier than I usually do, so I don't have reason to believe that mildew pressure is particularly high at this point, but cloudy, humid weather will help it along, rain or not. There's also the matter of the smoke from Canadian fires that may potentially reduce sunlight and temperatures, which will slow crop development, and we simply don't know how long, or how much, this may affect crop ripening.

Most of you have applied that first post bloom spray already, but for those that haven't (wine growers?), make sure to get that first post bloom spray on in a timely manner: 10-14 days after your immediate pre bloom spray, even if it means applying it before bloom is over.

I want to remind everyone that Phomopsis is still a threat. With normal amounts of spring rainfall, the overwintering inoculum of this pathogen gets "milked out" by about the time berries reach pea size, when we stop worrying about Phomopsis. No infective spores = no disease, even if the host (grapevine) is still susceptible, and the weather is wet. That said, low amounts of accumulated rainfall this spring has likely left Phomopsis spore sources (wood infected in previous years) with more unspent inoculum than usual. That means that we may need to apply a second post bloom spray for this disease, especially in vineyards that you know to have plenty of inoculum from problems in the past. Ziram (for juice grapes), captan (wine grapes only) or mancozeb (wine grapes only), are good choices for this the next time around. This is especially important if conditions stay wet into July. Some of the sterol inhibitors claim Phomopsis control on their labels. However, I have seen little data to show that these are effective Phomopsis fungicides. They're great against black rot, and the newer ones (like difenoconazole in the "Top" products, and Cevya) are effective against powdery mildew, but our limited testing of this fungicide class against Phomopsis has not looked promising. At this point, I cannot recommend any of the FRAC 3s (sterol inhibitors) for Phomopsis control. Stick with the ziram, mancozeb, or captan products for Phomopsis.

The rain we had earlier this week did generate infection periods for downy mildew that should be observable early next week. For juice growers, Ziram (which is not as effective as mancozeb products or captan) may need to be tank mixed with another material for downy mildew control, especially on susceptible varieties like Niagara. For wine grapes, mancozeb can continue to be used up to 66 days before harvest, and it is pretty effective on downy. If conditions stay wet, you will need to apply these 'old standards' with a newer synthetic downy mildew material like Revus, Revus Top,

Ranman, Ridomil, or a phosphorous acid product.

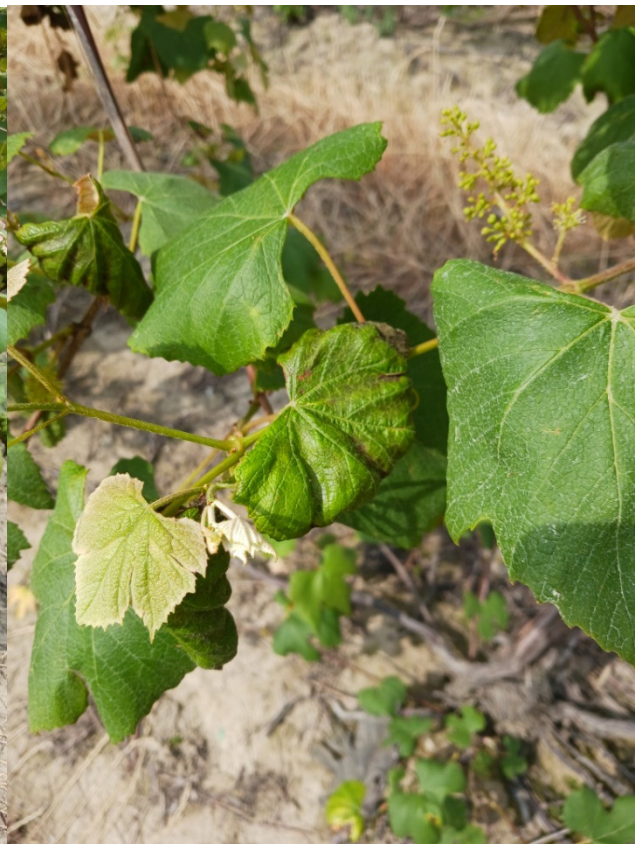
For premium wine varieties, protection against powdery mildew will continue to be necessary. Materials like Luna Experience, Aprovia, Aprovia Top, Gatten, Endura, Quintec, and Vivando would be good choices. **DO NOT** rely on strobilurins (Sovran, Abound), Stylet oil, or tebuconazole products (Tebustar, Tebuzol, etc) for powdery mildew control at this critical time for fruit protection. These materials should be tank mixed with sulfur for use on varieties that are tolerant of sulfur (Vitis vinifera and most white hybrids). The sulfur will add extra powdery mildew control and help to manage powdery mildew resistance to the chemistries in these products. Spare no expense with regard to protection from other diseases as well and look for some of the best products for control of black rot. Luna Experience and Aprovia Top mentioned above will also provide good black rot control by virtue of the FRAC 3 chemistries in them. However, if you rely on Luna Experience and you need good black rot control, you will need to use the higher rate OR use the lower rate and add extra tebuconazole (which is the cheaper alternative).

Now is also the time to plan leaf removal in the fruit zone. Leaf removal can be done by machine or by hand and generally provides sizable reductions in bunch rot on rot susceptible wine varieties (Riesling, Vignoles, Pinot noir and gris, Chardonnay, etc). It can even help improve control of other disease as well, like powdery mildew. A trial we have been running for the past three seasons on several Riesling clones and hybrids, compared two different timings of mechanized leaf removal (at just before bloom and about two weeks later (about early fruit set)) with no leaf removal (the control). Using air pulse technology to remove leaves, both timings provide for about a 50% reduction in harvest rots. Leaf removal reduces fruit disease by improving exposure of fruit to light, air, and pesticide penetration. It can also improve fruit quality and may even reduce manual harvest costs by making the clusters easier to see and access by hand harvesters. The downside to leaf removal is the potential to reduce yields. For example, in the first year of our Riesling study, there was no reduction in yield from the air pulse leaf removal.

However, in the second year of testing, leaf removal did reduce yields, regardless of timing. We'll be repeating this trial for one more season in 2023.

Lastly, it came to our attention last week, that a prebloom tank mix of JMS Stylet oil (at 2% concentration), Cevya, and Manzate, was the likely cause of phytotoxicity on Concord grape. Observation of the affected vineyards revealed that about 2-3 leaves of affected shoots have marginal leaf burn and interveinal discoloration, resulting in blighted, puckered and distorted leaves (Figures 1 and 2). It appears that the youngest leaves, at the time of the application, were the most severely affected. Older, mature leaves were least affected or not affected at all. The inflorescences do not appear to be too severely affected. Since then, we set up our own trial here at the North East lab to examine the effects of three permutations of the 3 materials mentioned above, as well as the combination of all 3, in a tank mix. The combinations of Stylet oil/Manzate, and Manzate/Cevya, did not produce any injury. However, the combinations of Stylet oil/Cevya, and Stylet oil/Cevya/Manzate did produce injury similar/identical to the injury in the grower vineyard. So, it's the Stylet oil/Cevya combination. We did also notice some dark streaking of the main stem of the clusters. However, it did not immediately appear to affect fruit set. My feeling at this time is that the vines will grow through it and subsequent growth and development will be ok. However, we recommend you avoid applying a Stylet oil/Cevya tank mix to Concord grape.

Figure 1 and 2: Concord vines sprayed prebloom with a tank mix of 2% Stylet oil, Cevya, and Manzate. Note the puckered, distorted leaves; a result of marginal leaf burn of young, expanding leaves.



PA Update

Megan Luke, Penn State Extension Viticulture and Tree Fruit Educator

Concord and most wine grape varieties are mostly through their bloom period. At this point in the season, it is important to be scouting several times per week for pest and pathogen pressure. Scouting *after* pesticide applications for material efficacy is extremely important. If materials are *not* giving you the control that you were expecting, please reach out so that we can troubleshoot issues in application strategies or document early resistance in local pest populations.

As most of you have made at least two pesticide applications at this time, it is important to be rotating 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

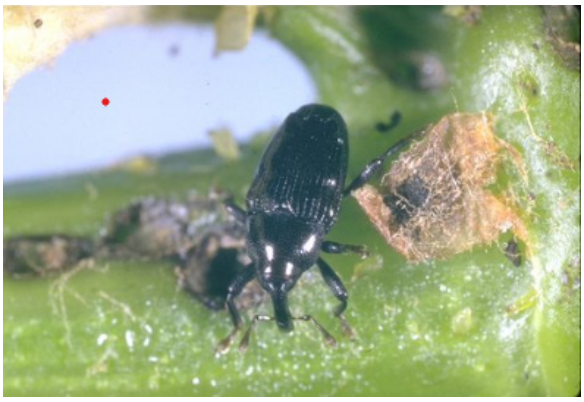
Modes of action for herbicides can be found here: HRAC

A few folks at this week's Coffee Pot Meeting expressed interest in leaf tissue sampling. In grapes the two times for petiole and leaf blade sampling are at bloom and at veraison. An excellent article on best practices for tissue sampling can be found here.

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.

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.

Photo Credit: Joe Ogrodnick, Cornell University, courtesy Greg Loeb



Photos courtesy of Cornell IPM, Joe Ogrodnick and Greg Loeb

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.

Please pre-register for the LERGREC Field Day, feel free to contact me if you need help with the registration process. New York and Pennsylvania core and category credits are available, and lunch is included with registration!

Office schedule (*July 3rd-7th*)

M 8am-4:30pm Out of office (available by email or phone)
T 9am-5pm Out of office (Fourth of July holiday)
W 8am-4:30pm LERGREC North East, PA
Th 8am-4:30pm LERGREC North East, PA (Field Day event)
F 9am-5pm Summit Municipal Building, Erie, PA

Contact information:

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

Office: (814) 825-0900

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