

Cornell Cooperative Extension Finger Lakes Grape Program



May 17, 2024

Finger Lakes Vineyard Update

IPM

Disease Management

In the field, growers should be considering applying a first phomopsis spray at around 3-6" of shoot growth, once the young clusters are exposed. This timing provides protection of the young tissues from splash-induced infections from lesions left over the previous season. New infections result from spores being splashed from overwintering lesions on canes, trunks and cordons onto green tissues. Therefore, vineyards that use high-wire systems are more susceptible to high levels of infections as more of the green tissue is located at the level of or below the older, infected wood than in a vertically shoot positioned system. Our [NEWA models](#) show several phomopsis infection periods since the beginning of May thanks to the rains this month, so it's possible that symptoms of early infections might be found on young leaves and shoots already (see photo).

At our Tailgate Meeting this week, we talked about the impending loss of ziram and potential restrictions or banning of mancozeb and captan, especially in relation to their use for phomopsis management at this time of year. If your reaction to that statement is something like, "Wait – what?", here's the (very brief) deal.

The EPA is evaluating a wide range of pesticides, including fungicides and herbicides, for their impacts to endangered and threatened species as required under the Endangered Species Act (the settlement of lawsuits around this issue triggered these reviews). Some of the first fungicides to undergo this review were ferbam, ziram and thiram. The EPA's evaluation found "*[risks of concern] from ziram use for fish (both freshwater and estuarine/marine), aquatic invertebrates, mammals, birds, and terrestrial invertebrates. Also, there are dermal and inhalation exposures to occupational handlers, post-application occupational risks (dermal), and bystander (non-occupational) risks to adults (dermal) and children (combined dermal and incidental oral)*" and therefore proposed to cancel all uses of ziram in agricultural crops. Assuming nothing changes at this point, growers will not be able to use ziram beginning in 2026.

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Similar reviews will also be done for mancozeb and captan in the near future, which are also broad-spectrum fungicides that are effective against phomopsis. They are not the same chemical as ziram, so it's possible that the outcome of those reviews could be different from that for ziram. Just for the sake of comparison (not saying this will happen here), both materials are still permitted for use in Canada, but only one spray of mancozeb is allowed per season, and captan appears to have some limitations as well.

All this is to say that growers should be aware about possible changes coming down the line when it comes to materials available to manage phomopsis, as well as other pesticides. The worst-case scenario is that both mancozeb and captan are banned from agricultural use, as ziram has been, and we need to find other materials that can do an adequate job of controlling phomopsis. Right now, they are the most effective materials available for that job. We will do our best to keep growers up to date on any proposed changes for use of these or other pesticides for vineyards as EPA continues these reviews.

Some of the information in this article came from a blog post from [CCE's Eastern NY Commercial Horticulture Program](#), "[Environmental Protection Agency Mitigation Proposal Update – Ziram/Thiram/Ferbam](#)" written by Megan Luke with the [Lake Erie Regional Grape Program](#).

Life After Broad Spectrums... Can We Survive?

By Dave Combs and Katie Gold

EPA restrictions against broad spectrum pesticides are imminent. What does that mean for the future of Eastern grape production? Dave Combs, Research Support Specialist in Dr. Katie Gold's Grape Pathology Laboratory at Cornell AgriTech shares his take what grape disease management will look like in a post-broad-spectrum world.

Going the way of the dodo

In early December 2023 the EPA announced to a small stakeholder audience over Zoom what many of us in the industry consider to be the first in a forthcoming series of restrictions upon broad spectrum pesticide use. Despite the public comments received during a 2021 review period, the EPA is deregistering (aka cancelling) all conventional crop use of Ziram (as well as Thiram and Ferbam) beginning in 2026.

The EPA regularly reviews pesticide registrations. This process determines what crops are allowed to use what chemistries and to what extent. Both Captan and Mancozeb are due to begin this process sometime this calendar year (2024). It is likely that grape growers' ability to use these materials will be significantly reduced or outright withdrawn.

Things are changing and changing rapidly. In the future, materials we have traditionally built grapevine disease management programs around will be less available, if at all. Milder winters will increase overwintering disease pressure. Some think that this will mean the end of Northeast grape production... but is that truly the case?

Life After Broad Spectrums... Can We Survive? (Continued from pg. 2)

By Dave Combs and Katie Gold

Are the good ol' days behind us?

Every generation thinks it has advantages over the last, and yet, every generation yearns for the 'good ol' days.' For example, many of us still pine for the era of big muscle cars, V8 engines, and the days when a gallon of gas cost only \$1. Yet, that hasn't stopped us from making the swap to electric vehicles for family and farm use. Sure, an electric engine just doesn't have the presence of a 4-barrel carburetor sucking down leaded fuel at 8 miles to the gallon, and it certainly is an adjustment to have to schedule a mid-trip car charging break on long drives.... but you can't deny that an EV runs laps around those old behemoths when it comes to gas expense, benefit to the environment, and carbon credits.

This is a surprisingly accurate metaphor for the grape disease management situation we face. We may be losing the 'old V8's' because of compounding environmental and health issues, but fortunately for us, there are effective 'electric vehicles' just waiting to be picked up on the lot.

The choice is yours: either put in that charging station or keep doing burn outs at stop lights.

The future is calling

The agricultural industry has prepared for these forthcoming changes. In recent years, even the stoutest conventional chemistry manufacturers have jumped to develop new modes of action and biofungicides. Some were a little more ahead of the curve than others, but none the less, everyone seems to be on the same road now. And fortunately for grape growers, we are well past the days of the Prius being the only EV on the lot and are solidly in our Tesla era.

I run Cornell Grape Pathology's fungicide efficacy evaluation program, which includes five unique disease trials that span nine vineyard acres. Our trials regularly have well over 100 unique combinations of conventional, biofungicide, and mixed rotational programs and form the foundation of the NY/PA Grape Pest Management Guidelines. We share these results through articles like this one, talks at grower events and conferences, Dr. Gold's annual "manifesto," (aka her [Annual Disease Control Update](#)), and peer-reviewed publications. These trials are the hardest arena any chemistry, conventional or biological, will ever go up against as they are intentionally managed to encourage disease development.

New Final Rule for H-2A labor protections

By Liz Higgins, Farm Business Educator - Eastern NY Commercial Horticulture Program

On April 26th the US Department of Labor also issued the final rule [“Improving Protections for Workers in Temporary Agricultural Employment in the United States.”](#) This final rule is intended to strengthen protections for temporary agricultural workers (H2A) and to enhance the Department of Labor’s capability to monitor program compliance and take enforcement actions against program violators.

The rule is effective June 28, 2024, but H-2A applications filed before Aug. 28, 2024, will be processed according to applicable federal regulations as is in effect as of June 27, 2024. Applications submitted on or after Aug. 29, 2024, will be processed in accordance with the provisions of the Farmworker Protection Rule.

The new rule has the following major provisions (based on a quick review of the Federal Register notice) but there is a lot there that needs more consideration:

- The final rule requires employers to provide assurances that they will not intimidate, threaten, or otherwise discriminate against certain workers or others for engaging in “activities related to self-organization,” including “concerted activities for the purpose of mutual aid or protection relating to wages or working conditions,” or refusing to engage in such activities.
- The final rule clarifies that an employer only terminates a worker for cause when the worker either fails to comply with employer policies or fails to perform job duties satisfactorily after, in most cases, the transparent application of a system of progressive discipline. The rule establishes that for a worker to be terminated for cause, five conditions must be met, including a requirement that workers are either informed about or reasonably should have known the policy, rule or performance expectation unless the worker has engaged in egregious misconduct.
- The final rule designates the effective date of updated adverse effect wage rates (AEWR) as of the date of publication of the AEWR in the Federal Register.
- The rule would also require employers who fail to provide adequate notice to workers of a delay in their start date to pay workers the applicable rate for each day that work is delayed for up to 14 days.
- Employers are required to disclose any minimum productivity standards they will impose as a condition of job retention, regardless of whether the employer pays on a piece rate or hourly basis.
- If a vehicle is required by Department of Transportation regulations to be manufactured with seat belts, the final rule prohibits the operation of these vehicles to transport workers under the H-2A program unless each occupant is wearing a seat belt.
- Employers are prohibited from holding or confiscating a worker’s passport, visa or other identification documents, which is a tactic used to exploit workers.
- The final rule updates procedures for discontinuing employment services for employers that have failed to meet the Department of Labor’s requirements. Relatedly, the rule requires states to discontinue services to debarred employers. It also streamlines the procedures for applying debarment to a successor who carries forward a debarred company.
- In addition, the rule codifies how the department determines whether separate entities are acting as one employer for purposes of assessing seasonal or temporary need and how these entities are treated for enforcement purposes.

Grower Survey on Need for Clean Plant Material

Jie Li and Miguel Gomez, Dyson School of Applied Economics and Management – Cornell University

Virus diseases have cost grape growers and the wine industry billions of dollars. It has been discovered that using infected planting materials is one of the main causes of these diseases. Consequently, the USDA and the industry invest millions of dollars in producing and maintaining a supply of clean, disease-tested planting materials.

We are excited to invite you to a pivotal research study titled "Factors Affecting Vineyard Growers' Demand for Clean, Certified Plant Material," led by Dr. Jie Li and Dr. Miguel Gomez at Cornell University, and funded by the USDA. This crucial study seeks to identify the key challenges that influence vineyard growers' adoption of clean, certified grape plant material.

Participation involves a short online survey, requiring about 5 minutes of your time. There are no risks beyond normal Internet use, and no personal identifiers will be collected beyond your winery/vineyard name. Here is the link: https://cornell.ca1.qualtrics.com/jfe/form/SV_ePXHnSWa7qJhMQS

Your insights are invaluable; they will not only deepen our understanding of the challenges growers face in adopting clean, certified grapevines but also significantly influence industry standards and strategies to combat grapevine virus diseases. Your time and support for this study are greatly appreciated! If you have any questions, please do not hesitate to contact me at jl2522@cornell.edu.

Precision and Digital Viticulture Field Day

Tuesday, June 4, 2024 4:00 to 6:30 pm

Cornell AgriTech - Lucy Robbins Farm

Entrance at: 3320 Sutton Rd, Geneva, NY 14456

Lat/Long: [42.87212, -77.040726](#)

Artificial intelligence (AI), autonomous platforms, and novel pest management tools and strategies have the potential to dramatically alter grape production systems. This includes technology to assist with phenotyping and selection efforts, the detection and treatment of diseases, and the elimination of weeds under vine rows using fewer herbicides and less soil disturbance. On June 4th, Researchers at Cornell AgriTech will host Naio Technologies, demonstrate the TED robot (Ted - Naio Technologies (naio-technologies.com)), at Cornell AgriTech's Lucy Robbins Farm and discuss the potential for autonomous tool carriers to assist with breeding and pest management efforts. The labs of [Dr. Yu Jiang](#) (Digital Agriculture), [Dr. Katie Gold](#) (Plant Pathology), and [Dr. Lynn Sosnoskie](#) (Weed Science) will also showcase their own research with respect to crop and disease mapping and using electrical weeders and targeted, precision sprayers to suppress unwanted vegetation. Drs Jiang, Gold, and Sosnoskie, as well as representatives for Naio Technologies, will take the opportunity to talk with stakeholders about current and future needs regarding novel technologies in perennial crops, which will help shape local, regional, and national research efforts.

Agenda

4:00 – 4:10 *Welcome* – Lynn Sosnoskie, Hans Walter-Peterson

Research Updates and Demonstrations

4:10 – 4:30 *Disease Mapping Technology* - Kathleen Kanaley, Katie Gold, Cornell University - Kathleen will update on her research using satellite and UAV images to map downy mildew and grapevine leafroll virus in the Finger Lakes.

4:30 – 4:50 *Meet PPB* – Yu Jiang, Cornell University – Yu will discuss his research utilizing the power of robotics and artificial intelligence to tackle major challenges facing farmers and drive a revolution in agricultural productivity and sustainability.

4:50 – 5:10 *Disease Resistant Cultivars in Use With Biofungicides* – David Combs, Katie Gold, Cornell University – Several selections from the Reisch breeding program are being compared for resistance to downy and powdery mildew. Treatments will consist of low spray and no spray programs to determine the best use practices for commercial use.

5:10 – 5:30 *Vision Spraying and Electric Weeding* – Aleah Butler-Jones, Lynn Sosnoskie, Cornell University – Aleah and Lynn will update us on her research for sustainable programs that investigate other tools and technologies for controlling unwanted vegetation exploring non-chemical strategies for weed suppression including covering crops and mulches and vision-guided and electric weeders.

5:30 – 6:30 *Naio Ted Robotic Tool Carrier*– Grant Elgie and Jason Gharibo will be talking about the Naio Ted Robot and the potential use of robots to help improve efficiency in vineyards. Ted is the only autonomous straddle robot for vineyards with Augmented Autonomy. Perfect for mechanical weeding on the row.

Upcoming Events

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



Tailgate Meeting

Tuesday, May 28, 2024 4:30 – 6:00 PM
Heron Hill Winery
9301 CR-76, Hammondsport, NY

Our next Tailgate Meeting will be on Tuesday, May 28 at Heron Hill Winery in Hammondsport. These meetings are a time for growers and the FLGP staff to discuss what's going on in the vineyards, ask questions, and learn from each other. There is no set agenda for the most part, so bring questions, observations, thoughts, etc. and let's talk about them. Each meeting has been approved for 1.5 pesticide recertification credits by DEC.

Here is the remaining schedule for Tailgate Meetings this year:

- May 28, 2024 Heron Hill Winery, 9301 CR-76, Hammondsport, NY
- June 11, 2024 Thorpe Vineyards, 8150 Chimney Heights Blvd., Wolcott NY
- June 25, 2024 Dr. Frank Vineyards, Beattle Hill Rd, Hector, NY
- July 8, 2024 (Monday) Simmons Vineyard, 3243 Fingar Road, Bluff Point NY
- July 23, 2024 Knapp Vineyard, 2770 Ernsberger Road, Romulus, NY
- August 13, 2024 Randall Standish Vineyards, 5506 NY-21, Canandaigua, NY
- August 20, 2024 Miles Wine Cellars, 168 Randall Crossing Rd, Himrod, NY

What's New in Grapevine Genetics?

Tuesday, May 21 10:00 AM

Fox Run Vineyards

670 Route 14, Penn Yan NY

Speaker: Dr. Lance Cadle-Davidson, USDA Grape Genetics Research Unit



The NY State Wine Grape Growers invite you to join them on Tuesday May 21 for a discussion of current developments in the field of grape genetics with Lance Cadle-Davidson. Since 2003, Dr. Lance Cadle-Davidson has researched the genetics of grape powdery mildew and downy mildew at the USDA-ARS Grape Genetics Research Unit at Cornell AgriTech. As a co-leader of the VitisGen grape breeding projects since 2011, Lance's research team has developed DNA marker tools to help grape breeders genetically map traits and select desirable seedlings and has developed automated analysis of disease severity in the laboratory (Blackbird microscopy robot). He recently established a participatory breeding program with the Virginia winegrape industry. He has extensive international collaborations, including co-hosting research projects at Cornell for 48 visiting scientists from 23 countries.

Upcoming Events

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Novel Technologies for Ag Field Meeting

Tuesday, June 4

4:00 – 5:30 PM

Cornell AgriTech Robbins Research Farm ([click here for location](#))

Geneva, NY



See program description in this week's Vineyard Update.



2024 GDD & Precipitation

FLX Teaching & Demonstration Vineyard – Dresden, NY					
Date	Hi Temp (F)	Lo Temp (F)	Rain (inches)	Daily GDDs	Total GDDs
5/9/24	61.5	49.1	0.00	5.3	159.6
5/10/24	53.4	48.0	0.33	0.7	160.3
5/11/24	63.0	44.8	0.21	3.9	164.2
5/12/24	59.4	49.3	0.02	4.3	168.5
5/13/24	71.2	47.3	0.02	9.3	177.8
5/14/24	79.2	56.5	0.02	17.9	195.6
5/15/24	66.7	56.3	0.13	11.5	207.1
Weekly Total			0.73"	52.9	
Season Total			6.21"	207.1	

GDDs as of May 15, 2023: 232.1

Rainfall as of May 15, 2023: 6.28"



Seasonal Comparisons (at Geneva)

Growing Degree Days

	2024 GDD ¹	Long-term Avg GDD ²	Cumulative days
April	69.9	64.2	+1
May	127.7	255.5	+6
June		484.3	
July		647.2	
August		596.8	
September		361.1	
October		113.9	
TOTAL	197.6	2522.9	

¹ Accumulated GDDs for each month.

² The long-term average (1973-2023) 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

	2024 Rain ⁴	Long-term Avg Rain ⁵	Monthly deviation from avg ⁶
April	4.73"	2.86"	+1.87"
May	1.70"	3.04"	
June		3.58"	
July		3.48"	
August		3.19"	
September		3.43"	
October		3.39"	
TOTAL	6.43"	22.97"	

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)

Additional Information

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

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

Finger Lakes Grape Program Advisory Committee

Eric Amberg- Grafted Grapevine Nursery

Dave Orzel– Nutrien Ag

Matt Doyle- Doyle Vineyard Management

Tara Farnan- Barrington Cellars

Chris Gerling- Cornell University Extension

Mike Colizzi- E & J Gallo

Tina Hazlitt- Sawmill Creek Vineyards

Cameron Hosmer- Hosmer Winery

Herm Young– Young Sommer Winery

John Santos- Hazlitt 1852 Vineyards

Steve Sklenar– Sklenar Vineyard

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Peter Weis – Weis Vineyards

Adam Folts—Vineyard View Winery

Ian Wagner—Wagner Vineyards

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Cornell Cooperative Extension Finger Lakes Grape Program

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