LERGP Crop Update
July 03, 2025

Cornell Cooperative Extension
Lake Erie Regional Grape Program

PennState Extension

In this copy:

NO COFFEE POT MEETING on Wednesday, July 9th!

The next coffee pot meeting is on **Wednesday, July 16** at 10:00am at CLEREL- Grower Demo Day!

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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.

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Business Management

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

FSA Payments Being Made

In May, the USDA announced the second round of Marketing Assistance for Specialty Crops (MASC) payments. According to Growingproduce.com, “the White House and the USDA’s Foreign Agricultural Service confirmed they had successfully processed MASC payments totaling more than $981 million to 43,646 participants”. I have been getting reports that grape growers have been receiving deposits this week.

If you received the first payment early this year and have not received the second, please contact your local FSA office.

Addressing Common Violations on Farms
Date: July 9
Time: 12:00 PM
Please join us for our next Ag Workforce Central Office Hour, our guests will be Mary Slattery (Director of the Division of Compliance and Education) and Reyna Morena (Deputy Director of the Division of Compliance and Education) from the NY State Department of Labor’s Division of Compliance and Education (DOCE). Mary and Reyna will share information about Common Employment Law Violations Found in New York Farms. Participants will have an opportunity to engage in a question and answer session with the panelists.
Registration is required to attend our webinars.
You will have the opportunity to submit questions in advance during registration.
Register now for the July 9th webinar
The Ag Workforce Central Virtual Office Hour is a webinar series that occurs every other month featuring Cornell experts and guest speakers on timely topics for the agricultural workforce. Virtual Office Hour offers participants the opportunity to access expert insights, practical strategies, and interactive discussions on topics such as regulatory compliance, leadership development, and fostering a culture of engagement within farm businesses.

What I’m Reading:

- USDA Announces July 2025 Lending Rates for Agricultural Producers - FSA

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2025
LERGP Coffee Pot Meeting Schedule

May 7, 2025 10:00am	**Militello Farm Supply** **2929 Route 39 Forestville, NY 14062**
May 14, 2025 10:00am	**Knight Vineyards** **18 Shaver St. Ripley, NY 14775**
May 21, 2025 9:00am	**LERGREC Field Day** **662 N. Cemetery Rd, North East, PA 16428**
May 27, 2025 10:00am **Note: This is a Tuesday!**	**Paul Bencal** **2645 Albright Rd. Ransomville, NY 14131**
June 4, 2025 10:00am	**Sprague Farms** **12435 Versailles Rd. Irving NY 14081**
June 11, 2025 10:00am	**AgriAmerica** **2465 Route 20 Silver Creek, NY 14136**
June 18, 2025 10:00am	**Arrowhead Winery** **12073 East Main St. North East, PA 16428**
June 25, 2025 10:00am	**Liberty Winery** **2861 US Route 20 Sheridan, NY 14135**
July 2, 2025 10:00am	**Chris & Heather Kaczor** **10468 Lake Shore Rd. Irving, NY 14081**
July 9, 2025 10:00am	**NO COFFEE POT MEETING**
July 16, 2025 10:00am	**Grower Demo Day at CLEREL** **6592 West Main Rd. Portland, NY 14769**
July 23, 2025 10:00am	**Schulze Vineyards & Winery** **2090 Coomer Rd. Burt, NY 14028**
July 30, 2025 10:00am	**NO COFFEE POT MEETING**

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

Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

In the Vineyard

CLEREL Crop Estimation and Fruit Thinning Demo Day
July 16, 2025, 9 AM – 12 NOON
Cornell Lake Erie Research and Extension Laboratory
6592 W. Main Rd
Portland, NY 14769

This season it is very important to know how much fruit you have hanging on your vines and how the vine responds to crop load. We have had many conversations during our coffee pot meetings about the effects of 2024's frost damage and fruiting potential on subsequent rested vines. We are anticipating large crop loads in the affected regions and managing crop load is crucial for achieving optimal fruit quality, future vine productivity, and ensuring economic viability for growers. Dr. Terry Bates will discuss the research implications of crop estimation and different crop management practices on the quality of grapes, with emphasis on fruit thinning. The integration of scientific research with practical vineyard management is essential for achieving high-quality fruit while maximizing economic returns.

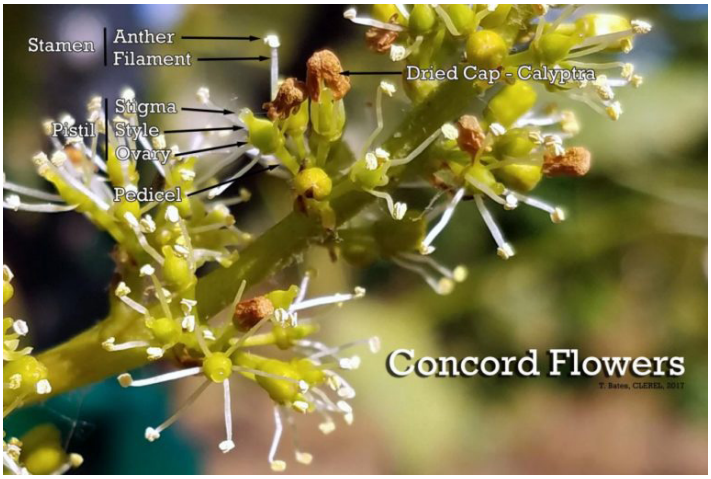
This Crop Estimation & Fruit Thinning Demo Day will start classroom style in the conference of the Cornell Lake Erie Research and Extension Laboratory (CLEREL) in Portland, NY, at 9 AM. Terry will present data on crop estimation and fruit thinning and answer questions from growers. We have been surveying our grower stakeholders during our Coffee Pot Meetings and have compiled a list of your questions and concerns surrounding this management practice for Terry to address, such as, where to thin (bottom canopy or total canopy), how fast to drive, the speed of the beaters in your harvester, tonnage removal goals, trusting the crop estimation numbers, and more. After the inside portion of the program, we will go outside for the demonstration portion of the program to see thinning in Concord grapes in action will the ability to ask more questions. We hope to see you on July 16, 2025, for this important demonstration session to help guide you with your management decisions for healthy vines for achieving high-quality fruit while maximizing economic returns and help to ensure your grapes reach maturity for delivery.

We hope to see you there!

Concord Flowering & Fruit Set In Lake Erie Region

T. Bates -Lake Erie Regional Grape Program

Photo 1. Concord in full bloom: 6/14/2017



Concord Flower Anatomy: 6/14/2017

This season, the staff at CLEREL recorded trace bloom in the standard phenology vines on 6/11/2017 and official bloom (50% cap fall) on 6/12/2017. The Concord flower cluster in this image is at over 90% full bloom on June 14th.

Most of the wild grapes you see on the roadside or in the woods have either all male or all female flowers. However, most of the cultivated grape varieties we grow have “perfect” or “hermaphrodite” flowers. Interestingly, cultivated grapes are also highly self-pollinated because the pollen will go from the anther to the stigma before the cap pops off.

The anthers typically release pollen prior to cap fall so pollination likely started on Monday (6/12) when we recorded trace bloom. To catch and rehydrate the pollen, the stigma produces a sap (seen at the tip of the stigma arrow in the picture). Rehydration of pollen takes about 30 minutes and then the pollen uses stored starch in the pollen grain to grow down the style. The speed of pollen tube growth and the time it takes to reach the ovule is related to temperature (roughly 48 hours at 60 degrees F, 24 hours at 70 degrees, and 12 hours at 80 degrees). The colder it is, the slower the pollen tubes grow. Since the ovules are only receptive for a short time, cool weather during bloom can cause the pollen to miss the window and lead to poor fruit set. Fortunately for 2017, it has been sunny and warm (between 60-80) for the past three days so Concord fruit set in the Lake Erie Region should be in decent shape.

Concord Pre-Fruit Set: 6/16/2017

Just after flowering, the pollinated pistils on the grape clusters will start to develop but not all of the ovaries will successfully develop into fruit. This Concord cluster has about 100 developing ovaries but will only retain and develop 25-30 fruit, on average. Expanding pollen must first fertilize at least one of four ovules while they are receptive. Successful fertilization induces the production of certain plant growth hormones for cell division (auxin) and cell expansion (gibberellin) in different tissue layers. The balance of these hormones is important for the successful retention of the developing ovary. Percent total fruit set is influenced by cultivar and certain management practices, such as pruning level. A variety of environmental stresses (light, temperature, carbohydrate, nutrient, and water stress) can also reduce fruit set. Many of our management recommendations, such as for weed control and mineral nutrition, aim to eliminate any vine stress during the fruit set and berry cell division phase in the 3-4 weeks after bloom. Unfertilized or stressed ovaries will eventually abscise or “shatter.”

Concord Mid-Shatter: 6/19/2017

Just one week after the start of bloom, Concord clusters are setting fertilized berries and dropping others. This cluster has dropped about 40% of the pistils which were originally pollinated but not successfully fertilized. A corky abscission scar can be seen where the pedicel of aborted flowers have separated from the rachis (cluster stem).

Why is it important to track fruit set?

Current research objectives aim to improve mid-season crop estimation. Grape yield is a function of shoots/vine, clusters/shoot, berries/cluster, and final berry weight. These “yield components” can be influenced by biological factors such as vine size and vine water status, management factors such as pruning level, or environmental factors such as temperature during fruit set. Spatial data from the Efficient Vineyard project illustrate how yield components can vary from vineyard to vineyard as well as within a vineyard. We are testing the use of the Carnegie Mellon Image sensor to directly detect and count certain yield components – such as shoot number and berry number across a vineyard. We are also combining this information with other spatial data to direct vineyard sampling during the middle of the growing season to predict final crop size across whole vineyard blocks.

Harvest Timing and Crop Load

A pivotal study conducted by Bates in 2008 examined the relationship between pruning severity, yield, and harvest timing for achieving the industry standard of 16 Brix. It was found that crop loads exceeding 11 resulted in a delayed harvest date, although the delay was only approximately one week even at crop loads as high as 20. This slight postponement may be considered acceptable when weighed against the potential for increased crop returns, as higher yields can translate to better financial outcomes for growers.

Mechanization and Crop Load Dynamics

Further insights were gained from a Concord mechanization study that evaluated mechanical shoot and fruit-thinning practices. This research indicated that yield-to-pruning weight (Y:PW) values reaching up to 22 could still produce fruit with the desired 16 Brix, albeit with a reduction in vine size. However, crop loads between 11 and 14 were identified as optimal, as they not only yielded acceptable juice soluble solids but also maintained vine size, thereby contributing to the overall health of the vineyard (Bates, 2017).

Recent advancements in spatial crop load mapping and variable-rate fruit-thinning techniques have revealed Y:PW values ranging from 15 to 45 in unthinned blocks across commercial New York Concord vineyards. Research conducted by Bates et al. (2018) and Taylor et al. (2019) demonstrated that mechanical fruit-thinning effectively reduced mean Y:PW from 30.1 to 19.8 while ensuring that the entire vineyard block produced fruit exceeding the 16 Brix threshold. Notably, this highlights the impact of market pressures on vineyard management, as the high crop load values observed are often indicative of overcropping in other studies.

Defining Vine Balance

Subjectively, vine balance for Concord grapevines grown in the Lake Erie AVA (American Viticultural Area) is characterized by the cultivation of the largest possible crop that still achieves 16 Brix by commercial harvest, typically occurring 30 to 40 days post-veraison. This balance is further complicated by grower experiences, which suggest that seasonal conditions significantly influence decisions related to crop thinning levels.

The primary objective of the current study is to identify the Y:PW that aligns with the commercial definition of vine balance in Lake Erie Concord vineyards. Additionally, the research aims to determine whether the method of crop size management—whether through pruning or fruit thinning—affects the crop load response in terms of Brix levels and seasonal changes in pruning weight. Understanding how seasonal conditions alter the target Y:PW for vine balance is also critical.

Concord Crop Estimation Guide

Crop Estimation and Thinning Table

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

Pounds of Fruit Removed in 1/100th of an Acre	Time of Season: 20DAB			25DAB		30DAB		40DAB	50DAB	Veraison				Harvest
	% of Final Berry Weight													
	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.

Collecting a little bit of information from the vineyard during the growing season can greatly improve your prediction of final yields wit 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.**

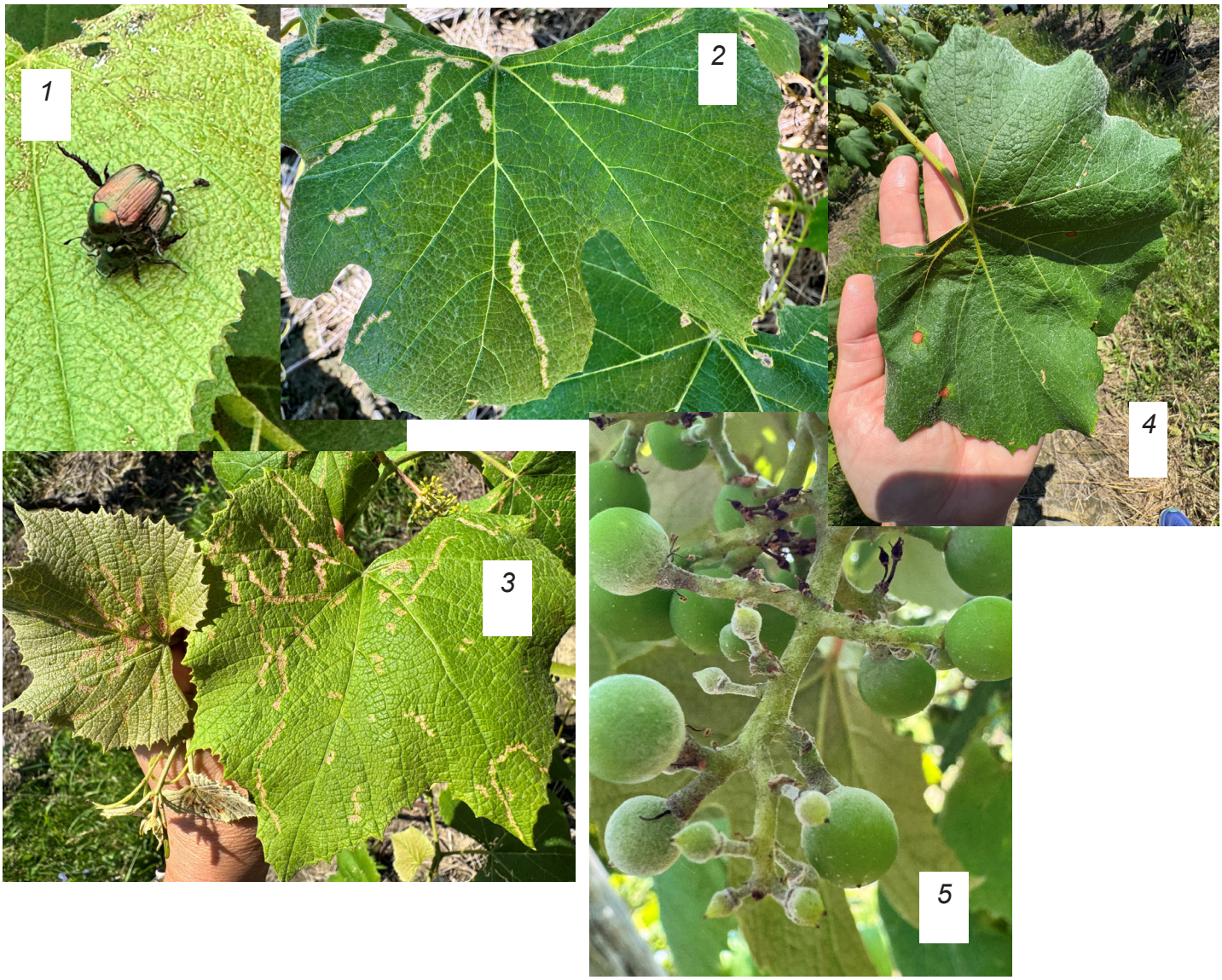
Mechanical Crop Estimation

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 (Click Here for the Using the Concord Crop Estimation 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.

Things that we are noticing in the vineyards the week of July 1, 2025. I have noticed Japanese beetles (Photo 1 below), chain-link feeding patterns from the grape root worm (Photo 2 & 3 below), powdery mildew clusters (Photo 4 below), black rot spots (Photo 5), and downy mildew oils spots in vineyards across the belt. Please be sure to scout and reference your NY and PA Grape Guidelines for spray decisions or reach out to myself or Megan Luke to assist you.

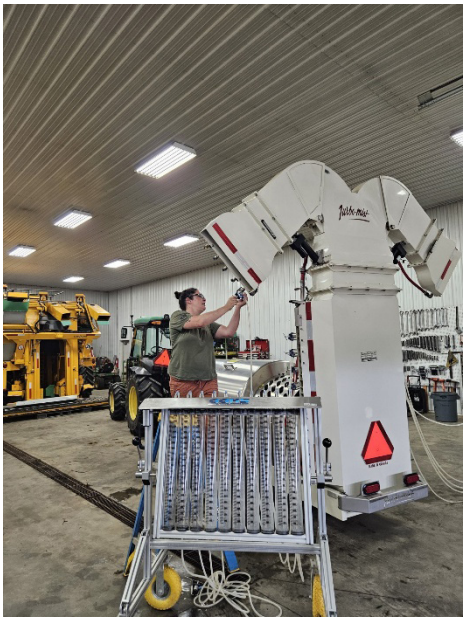


PA Update

Megan Luke, Penn State Extension Viticulture and Tree Fruit Educator

Sprayer Best Practices and Calibration Update

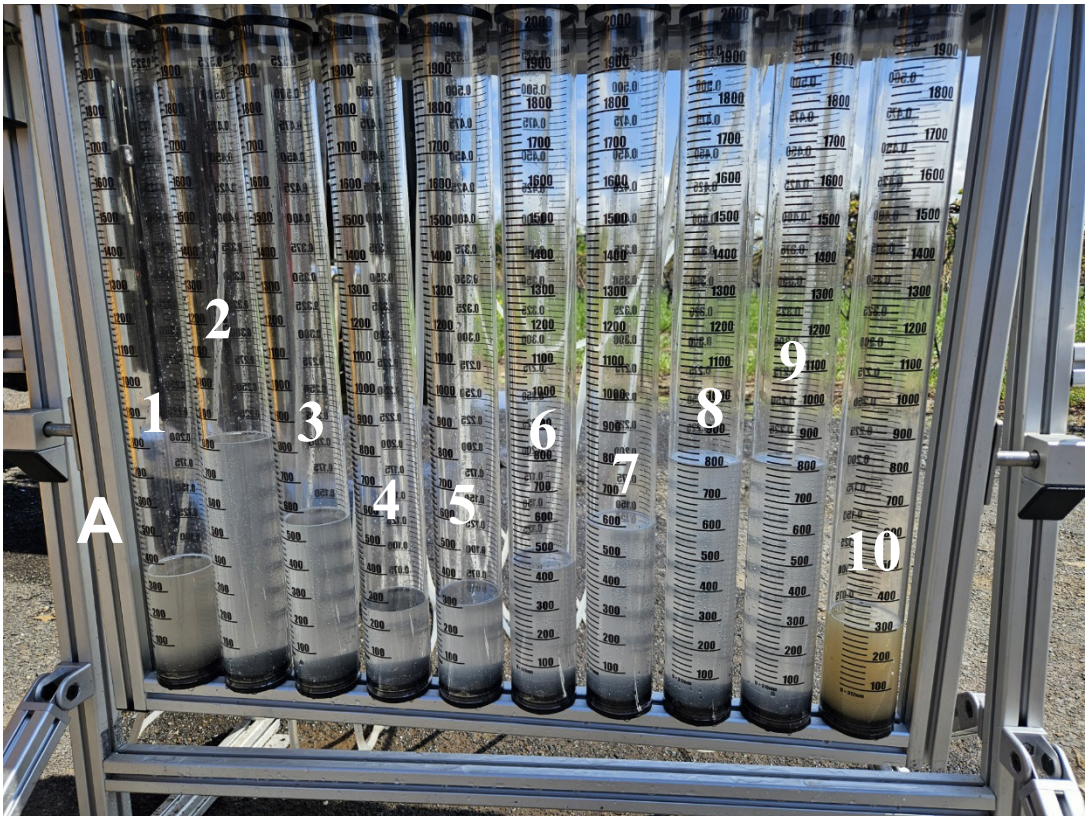
Calibrations of spray equipment have been in full swing, and I have some availability for mid-season appointments if you have noticed issues in your spray program. Please contact me for availability or schedule through the LERGP website.



A few observations as I have the opportunity to work on various sprayers throughout the grape belt and beyond:

- Having a flow meter or being accurate in “field calibration” does mean that you have good coverage
- All sprayers, but especially multi-row sprayers, are sensitive to pressure. Issues in a single nozzle can result in incorrect output in multiple nozzles
- Water quality issues can contribute to BOTH material failures and coverage issues
- Every calibration appointment I have completed has resulted in at least one issue being uncovered, meaning everyone has room to improve!

Before calibration:



In this photo (A), nozzles 1 through 5 are connected to one side of the panel on a multi-row sprayer, and nozzles 6 through 10 are connected to the other side. These sets of nozzles would be spraying opposite directions. Nozzle 1 and nozzle 10 are the bottom most nozzles on the panel, nozzles 5 and 6 are the top most nozzles.

In photo A, nozzles 1, 5, 6, and 10 should be passing the same amount of fluid. Nozzles 2,3,4,7,8, and 9 should also be passing the same amount as each other, higher than the top and bottom nozzles.

Sprayer during calibration:

The lowest nozzles on the panels, 1 and 10, passed liquid that was dark and contaminated. Due to the way that material settles within the panels, it is a good idea to remove the lowest nozzles when not in use so the system discharges any material. Be sure to flush out the machine frequently. It was also observed that the only blockages that were found with nozzle removal were in nozzles 4 and 7. After those nozzles were cleaned, the system regulated and no further adjustments were needed.

Post calibration:

In photo C you can see that the nozzles are in alignment with the expected output based on nozzle orifice size and whirl plate. Sediment is still present in the lowest nozzles, but running water through

the system should flush out any remnants.

Takeaways:

- The flow meter for the system was accurate in terms of output, but the nozzles were not within calibration specifications, which is within 5% of expected output based on manufacturer specs and system pressure.
- The issues observed were enough to lead to poor coverage and therefore material failures.
- The level of blockage observed was enough to put the sprayer out of calibration, BUT NOT BAD ENOUGH TO BE OBSERVABLE FROM THE CAB.
- The issue of small bits of debris blocking nozzles may continue and should be regularly checked. To avoid this issue- install a simple sediment filter in your water system pre-mixing tank. Keep filters within the sprayer clean and change them as required by the manufacturer. Check nozzles for clogs and blockages often.
- Without a full calibration, these issues would have been nearly impossible to detect visually or with the whole system flow meter. When in doubt, calibrate!

Contact information:

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

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Email: MFL5873@psu.edu

Erie Horticultural Society Chicken BBQ Meeting Agenda- 2024

Location: Gravel Pit Park, 10300 W Main Rd, North East, PA 16428
Date: Wednesday, July 30th 2025
Time: 4:00 PM- 7:00 PM

A three-hour chicken BBQ and meeting with two core credits and one category credit in the afternoon, providing growers with updated information and research in juice and wine grape production, as well as best practices for pesticide application. Registration is free, and dinner will be provided.

- **4: 00 PM Start:** Equipment show and vendor tables
- 4:30 PM (30 minutes) 1 core recertification credit
  - **Title:** "Worker Protection Standard- What does compliance look like?"
  - **Speaker:** Joni Davis
  - **Description:** Inform-Protect-Mitigate. The whole reason for the regulation is to make sure those who work for you know what they are being exposed to, how to protect themselves from that exposure, and what to do if they are exposed to pesticides while working on the farm. During this talk, you will learn what it takes to gain compliance and how to maintain it year after year.
- 5:00 PM (30 minutes) 1 category recertification credits
  - **Title:** "Update on vineyard weather stations and insect pest research"
  - **Speaker:** Kim Knappenberger and Flor Acevedo
  - **Description:** Discussion of the benefits of hosting weather stations within the vineyard, including degree day models and infection period estimation, and updates on management strategies for grape berry moth and spotted lanternfly.
- 5:30 PM (30 minutes) 1 core recertification credit
  - **Title:** "Pesticide best practices and legal changes to labels for the coming growing season"
  - **Speaker:** Megan Luke
  - **Description:** Brief update regarding label changes to pesticides commonly used in grapes (ziram, captan, mancozeb), and overview of upcoming changes, including use of the EPA's Mitigation Menu and the Bulletins Live! 2 website.
- 6:00 PM (Dinner)

- 7:00 PM **End**

This is a FREE Event but you **MUST REGISTER !**

REGISTER ONLINE HERE

or call Katie at
716-792-2800 ext 201

DATE:
August 12, 2025

TIME:
9:00 a.m.-5:00 p.m.

LOCATION:
Quarry Hill Winery & Orchard
8403 Mason Rd #2
Berlin Heights, OH 44814

REGISTRATION COST:
Early Registration: $45 per person until July 1

Late Registration: $60 per person July 2 until August 1

New Sprayer Technolgies and Best Practices: Vineyards and Orchards

This workshop will feature presentations on best spraying practices using conventional sprayers and new sprayer technology, including spray drones and Intelligent sprayer units. The afternoon will provide field demonstrations showing adjustments to improve effectiveness of conventional sprayers as well as sprayer operation and calibration demonstration. This workshop is being developed by OSU, MSU, and PSU Extension Specialists and the USDA-ARS Application Technology Research Unit. Registration is required. Please see the agenda for program details. Lunch and workshop materials are included with registration.

REGISTER AT GO.OSU.EDU/SPRAY2025

PennState Extension

The Ohio State University
College of Food, Agricultural, and Environmental Sciences

Michigan State University Extension

Updates and Information

Kimberly Knappenberger, Extension Support Specialist, LERGP

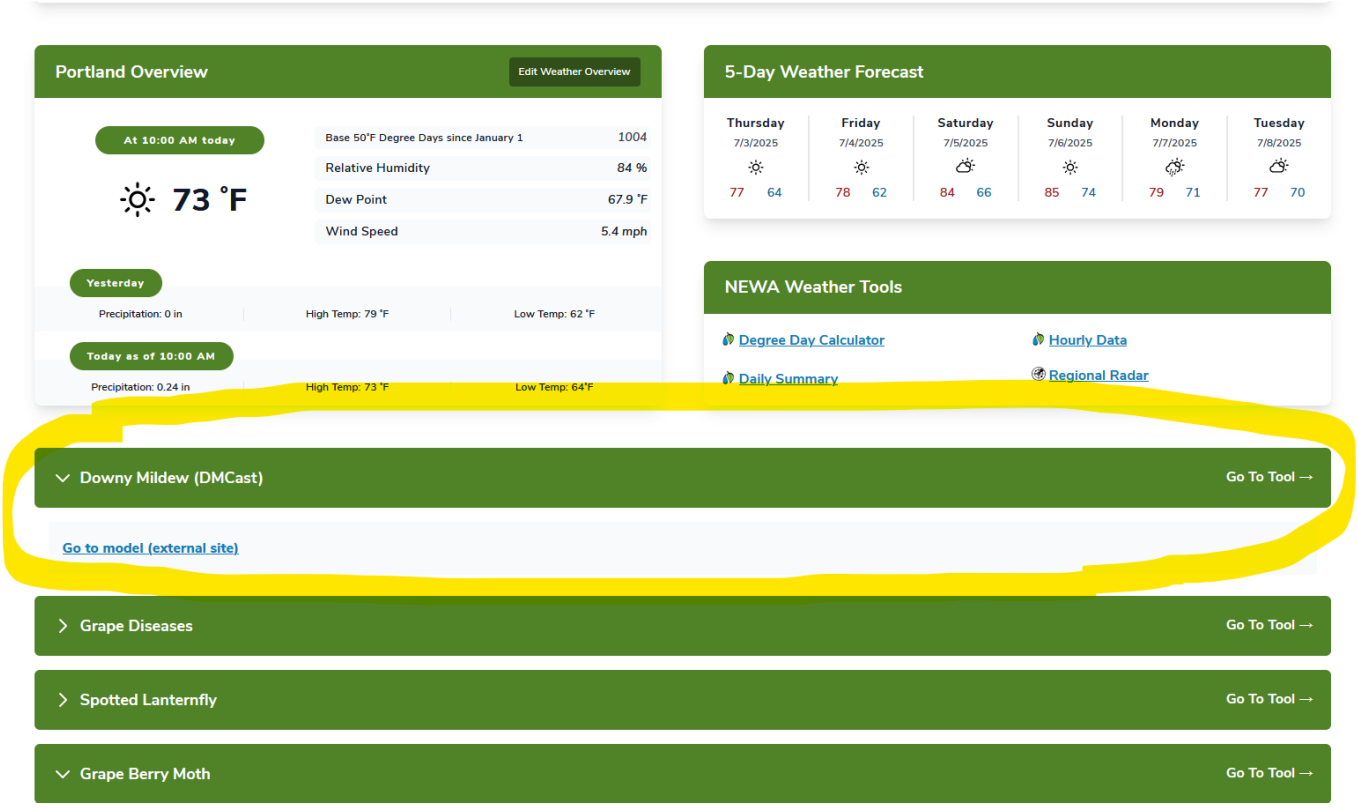
NEWA Location	Wild grape bloom date*	DD total on 7/3/25	Forecasted DD for7/8/25
Burt (NYS Mesonet)	6/9/25	589	726
Newfane (Chateau Niagara)	6/5/25	689	831
Ransomville	6/3/25	757	898
Lockport	6/3/25	749	889
Brant	5/29/25	816	951
Versailles	5/30/25	773	912
Hanover	6/4/25	730	870
Silver Creek (Route 5)	6/4/25	714	855
Silver Creek (Double A)	5/30/25	809	949
Dunkirk (Route 5)	6/4/25	706	845
Sheridan	5/29/25	818	957
Sheridan (Liberty)	5/31/25	793	932
Forestville	6/3/25	747	887
East Fredonia	6/4/25	719	859
Fredonia (NYS Mesonet)	6/4/25	711	853
Brocton Escarpment	6/3/25	738	875
Portland/Portland LERGP West	6/3/2025	743/758	882/903
East Westfield	6/4/25	710	853
Westfield	6/3/25	743	879
Westfield (South)	6/3/25	749	890
East Ripley	6/2/25	768	900
Ripley	6/3/25	757	900
Ripley Escarpment	6/3/25	741	884
Ripley State Line	6/3/25	751	896
North East State Line	6/4/25	707	845
North East Escarpment	6/3/25	744	882
North East Sidehill	6/3/25	738	876
North East Lab	6/4/25	705	842
Harborcreek	6/2/25	771	918
Harborcreek Escarpment	6/4/25	696	838
Lake City	6/2/25	757	902
Lake City (Mason Farms)	6/3/25	746	891

Table 1. Phenology-based Degree Day model results for Grape Berry Moth by NEWA station location in the Lake Erie Region. ***Estimated date provided by NEWA website**

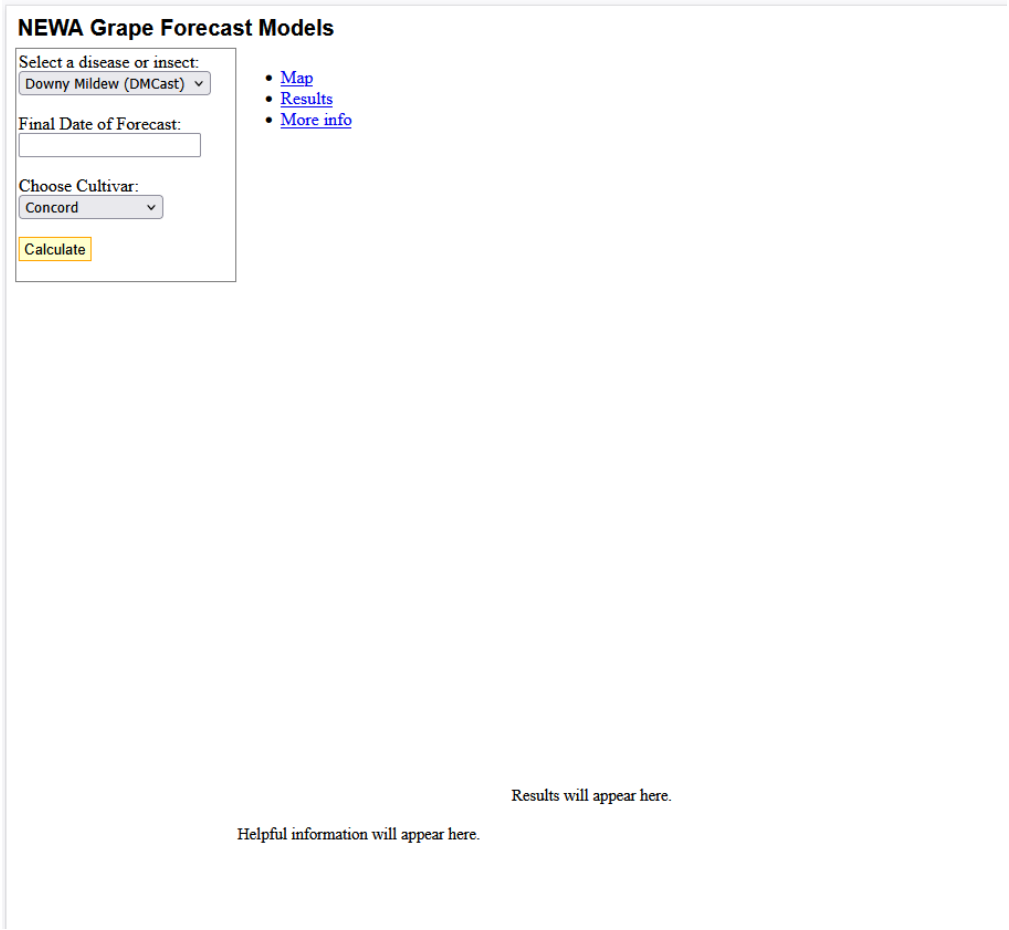
NEWA

Grape Berry Moth - As you can see from the table, all stations in our region except the Burt (Mesonet) station have already or will be reaching and going over the 810 threshold for Grape Berry Moth in less than a week. NEWA lists the pest status as the “start of flight of first generation grape berry moth adults expected at this time” and “egg laying continues”. The management suggestions are “Prepare to scout low and intermediate risk vineyards for grape berry moth damage when DD accumulation after wild grape bloom reaches 750-800 DD. During scouting, determine if damage from first generation larvae exceeds the treatment threshold of 6% damaged clusters. If above threshold, control measures should be applied at 810 DD.” and “For materials that are contact insecticides, e.g. pyrethroids and carbamates, apply between 811 and 900 DD.”
As always we strongly recommend scouting to see what damage you have in your vineyard. Using good materials, and ensuring good coverage at this time, for this generation, is critical in helping to limit the size of future generations.

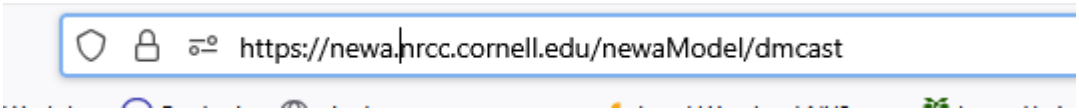
Downy mildew model – we have had a number of people reach out to ask about the Downy Mildew model on the NEWA website. I might finally have an answer! The problem has been that when you click the link to access the model, it goes to a page that appears to be a dead end. No inputs can be made to get the model information.
The reason for all of this is that the model was created in the 1990’s and though it works, it is not compatible with the current version of the website. I was able to access it from My NEWA Dashboard when I was logged in to my account. When you click the link it takes you to an external source…



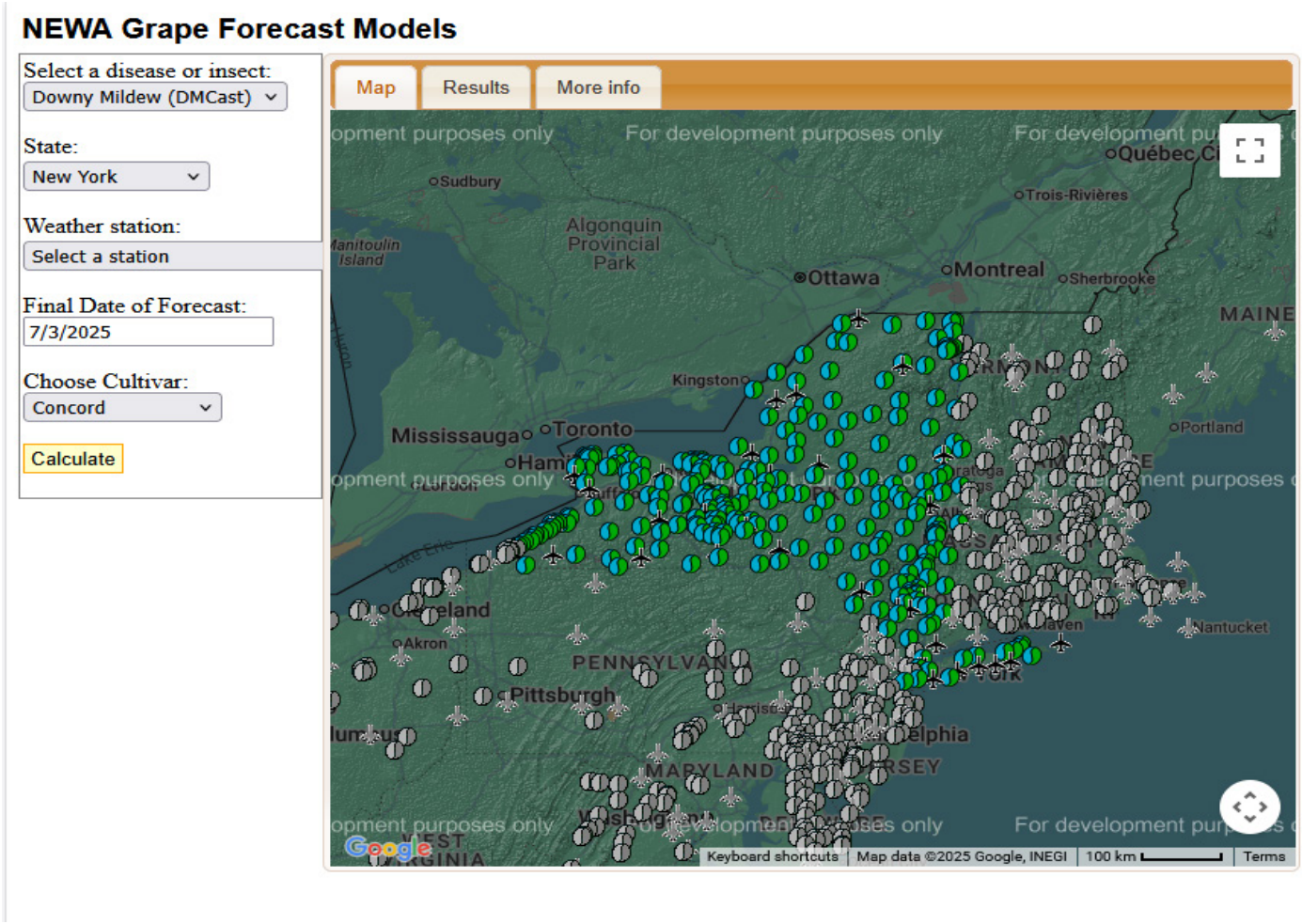
And that looks like this. Unfortunately nothing happens if you try to type in the date.



In order to actually use the model you will need to go to the search bar on your browser and click on it. It looks like this…



In some browsers you can just delete the “s” from **https://newa.nrcc.cornell.edu**... (you might have to do it twice) and then you will see the old page pop up. In other browsers (Chrome specifically) you can go to the 3 dots on the far right of the search bar. Click those and you can go to “incognito” mode. For now this is a quick work-around to get you access to that model. It is on the radar of the NEWA programmers and they hope to get to work on it later this year. For now please give that a try and see if you can get to it. Once you do, the page will look like this…



By selecting a station from the dropdown menu you can then see the model.

NEWA Grape Forecast Models

Select a disease or insect: Downy Mildew (DMCast)

State: New York

Weather station: Ripley

Final Date of Forecast: 7/3/2025

Choose Cultivar: Concord

Calculate

Map | Results | More info

DMCast Results for Ripley
Final Date of the Forecast: 3 Jul 2025

Dates of ELS 12 Growth Stage and Primary Infection by the DMCast Model

- **Eichhorn and Lorenz Stage (ELS) 12** for **Concord** was reached on **21 May 2025**
  - *ELS12: Five to six leaves unfolded, inflorescences clearly visible*
- **Primary infection** occurred on **21 May 2025**
- **Incubation period** for secondary infection cycles was completed on **1 Jun 2025**
- Therefore, downy mildew spores for secondary infection are expected to exist in the vineyard after 1 Jun 2025

Downy Mildew Infection Risk Warnings (▬) during the Last 2 Weeks (06/19 - 07/03)

▬ Blue bar with green shade indicates minimum conditions for infection were exceeded.

P P indicates precipitation - rain or snow was observed at that hour.

Date	Hourly Indication of DMCast Warning																							Weather during 24-hour Period		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Leaf Wetness (hr.)	Average Temp (F) During Wetting	Daily Total Rainfall (in.)
06/19	P	P		P	P										P	P		P	P	P ▬	▬	▬			7.2	64.4	0.64
06/20																									0.0	-	0.00
06/21																									0.0	-	0.00
06/22																									0.0	-	0.00
06/23																									0.0	-	0.00
06/24																									0.0	-	0.00
06/25																									0.0	-	0.00
06/26						▬																			1.6	71.2	0.00
06/27							▬	▬									P ▬	▬							3.4	72.5	0.03
06/28																									0.0	-	0.00
06/29																									0.2	65.3	0.00
06/30																	P			P	P	P	P	P	5.4	73.7	1.05
07/01																									0.3	73.9	0.00
07/02																									0.0	-	0.00
07/03			P		P ▬	▬	▬																		3.9	67.0	0.08

Downy Mildew Warning History

Shades indicate incomplete primary infection at the warning events.

#	Started on	Ended on	Duration (hr)	Leaf Wetness (hr)	Average Temp During Wetting (°C)	Average Temp During Wetting (°F)
1	04/26 02:00	04/26 12:00	11	12.8	12.4	54.3
2	05/06 06:00	05/06 10:00	5	7.2	12.9	55.3
3	05/08 15:00	05/08 15:00	1	5.8	7.5	45.6
4	06/06 01:00	06/06 08:00	8	10.4	16.8	62.2
5	06/07 06:00	06/07 08:00	3	4.1	15.9	60.5
6	06/09 18:00	06/09 22:00	5	5.4	18.1	64.6
7	06/14 02:00	06/14 12:00	11	13.5	15.4	59.7
8	06/17 16:00	06/17 16:00	1	1.4	23.3	74.0
9	06/18 12:00	06/18 15:00	4	3.5	23.3	73.9
10	06/19 20:00	06/19 22:00	3	4.3	16.8	62.2
11	06/26 05:00	06/26 05:00	1	1.4	21.7	71.0
12	06/27 06:00	06/27 07:00	2	2.0	20.5	68.8
13	06/27 16:00	06/27 17:00	2	1.4	25.2	77.4
14	07/03 04:00	07/03 06:00	3	3.9	19.4	67.0

Disclaimer: These are theoretical predictions and forecasts. The theoretical models predicting pest development or disease risk use the weather data collected (or forecasted) from the weather station location. These results should not be substituted for actual observations of plant growth stage, pest presence, and disease occurrence determined through scouting or insect pheromone traps.

NEWA

I hope this is helpful and not too confusing. Please reach out if you have any questions!

PA Update

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

Weather: June of 2025 turned out to be wetter and warmer than average: total rainfall was 4.3" with 549 growing degree days (gdds) at our location in North East Pa.

Phenology and diseases: With the warm and wet conditions during June, we should be on the lookout for downy mildew and black rot. SCOUT YOUR VINEYARDS NOW. Downy mildew can quickly blow out of control and clusters of many varieties (including Niagara) may still suffer berry and cluster stem infections (with resulting crop loss) if fungicide sprays are not applied in a timely way to stop them. For these two diseases on wine varieties, mancozeb may not be enough under high rainfall conditions. Mancozeb is a good fungicide, but it can fail if it washes off under high rainfall conditions. More rainfast materials for downy mildew are Ranman, Ridomil MZ/Cu, Zampro, Revus/Revus Top, and the phos acid materials (like Reliant). A word of caution: there is widespread downy mildew resistance to Revus, phos acids, and strobilurins (Abound, Sovran Narvos), in the Lake Erie region. If you've been using them in your wine vineyard for many years, it's likely their efficacy has slipped, or is gone altogether. On the flip side, we have found NO resistance to Ridomil, and I suspect Ranman and probably Zampro are still working well. Of course, there's always copper.

For black rot, the best materials are the sterol inhibitors (FRAC 3) and strobilurins (FRAC 11)…yes that's right; the strobies are not for downy and powdery mildew anymore, but they are still excellent black rot materials. Mancozeb also works well for wine growers, but as I mentioned earlier, they are more subject to being washed off by excessive rainfall. I've seen mancozeb fail under high rainfall conditions.

Cloudy and humid conditions also provide the right environment for powdery mildew as well. We are currently well beyond primary infections of this disease and are now bracing for the onslaught of secondary infections taking place virtually every day until fall. We are about 2-3 weeks after bloom in Concord, toward the end of the susceptibility period on fruit. Berries that are about a quarter inch in diameter or more, are now resistant to mildew. Wine varieties, especially *vinifera*, will retain some susceptibility to this disease through 3-4 weeks after bloom. Again, do not rely on strobilurins for powdery mildew control any longer.

And finally, this is farewell. As I have retired, this will be my last crop update. The last 26+ years have been a wonderful, wild ride in this business and I will miss it. I'll miss my interactions with my colleagues at Penn State, Cornell and other universities and of course, the many grape growers I've had the pleasure of knowing. I plan to stay in touch and hope that I can continue to interact with members of academia and the industry from time to time; this has been a huge part of my life. I'll be around. Cheers!!

Congratulations Bryan-
You will be missed by all!
Thank you for all of your guidance over the years.
Enjoy your retirement and being a RockStar!

Links of Interest:

Cornell Cooperative Extension:
https://cals.cornell.edu/cornell-cooperative-extension

Efficient Vineyard:
https://www.efficientvineyard.com/

LERGP:
https://lergp.cce.cornell.edu/

https://lergp.com/

NYSIPM:
https://cals.cornell.edu/new-york-state-integrated-pest-management

Veraison to Harvest:
https://cals.cornell.edu/viticulture-enology/research-extension/veraison-harvest

Spotted Lanternfly Pocket Guide:
https://lergp.com/spotted-lanternfly