


Concord Cluster 08/01/2022-
Kim Knappenberger

CROP UPDATE
August 4, 2022

Cornell Cooperative Extension
Lake Erie Regional Grape Program

PennState Extension

In this copy:

How to reach us:

Contact Information:

Jennifer Phillips Russo - LERGP Viticulture Specialist:
jjr268@cornell.edu
(716) 640-5350

Kevin Martin – LERGP Business Management Specialist:
kmm52@psu.edu
(716) 397-9674

Kim Knappenberger – LERGP NEWA and Vineyard Improvement Program Contact
ksk76@cornell.edu
716-792-2800 ext 209

Kate Robinson – Administrative Assistant
kjr45@cornell.edu
716-792-2800 ext 201

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.

Rescheduled
LERGP Research Demo at CLEREL!
August 31, 2022
9:00am-1:00pm

Due to low registration numbers we had to cancel the previous event as it would not be fair to guest speakers and vendors to put the travel, money and time towards speaking to such a small group. We have restructured this event a bit to still highlight all of our research and inform the growers what we have going on for research around the farm, but it will be presented by your friendly researchers, specialists and staff housed at CLEREL.

This event is free of charge but we need a head count so it is greatly appreciated if you would register by either registering on line, calling (716) 792-2800 ext 201 or e-mailing Katie (kjr45@cornell.edu)

Please come spend the morning with us and then join us for a cookout lunch. NYSDEC Pesticide credits have been applied for.

This is a FREE event but please register

Business Management

Kevin Martin, Penn State University, LERGP, Business Management Educator

Economics of pH

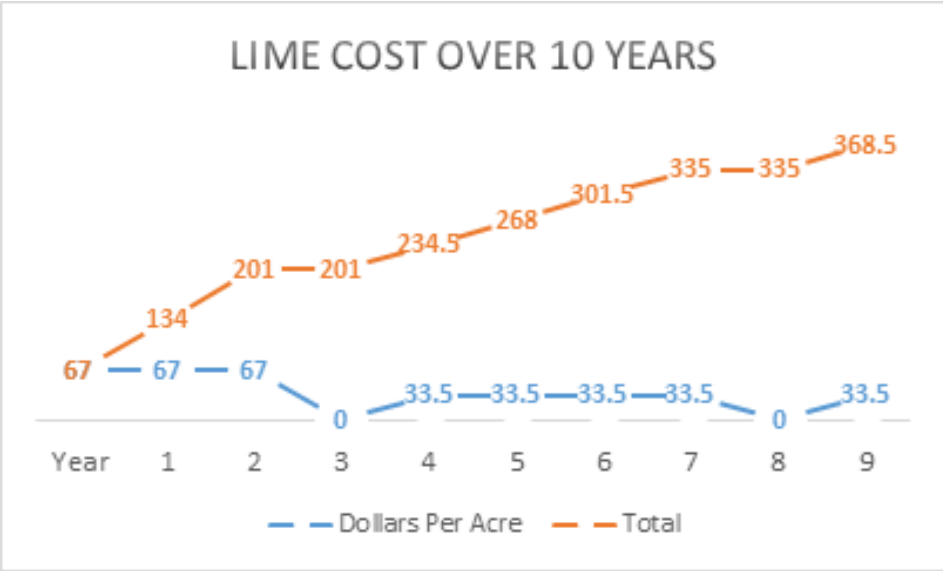
Research once indicated that Concords were able to tolerate low pH. That was actually true. At the time the economic and viticulture reality was an entirely different world. Balanced pruned umbrella kniffin training systems were the best known way to manage juice grapes at the time. Advanced fungicide, canopy design improvements and machine harvesting all developed while agricultural commodity prices would trend lower for the next fifty years.

Our new economic reality is to maximize yields. Our commercial vineyards are now typically in a constant state of over-cropped, unless frost events allow vines to rest. This model, while not sustainable, also completely eliminates the ability of the vine to "tolerate" low pH. In our new economic reality vines demand higher pH.

While some vineyards have a pH over 6.0, most growers need to invest $200 per acre over the next 3 years. While some soils change easier than others, chart 1 shows what a typical grower with a soil pH of 5.0 would likely need to budget for the next decade. Chart 1 shows both the cost per year and the total accumulating cost over time.

After about three years the grower will start to see benefits. It is more than likely that a balanced yield will be 1-2 tons higher as vine size increases. If that's not the case, savings would be realized as nutrients like potassium become more available. It is very likely that savings in fertilizers would exceed $350 per acre. Fertilizer savings can be muted by a need to keep potassium in balance. To predict this challenge, one can watch available magnesium levels. These will rise more quickly than potassium but available magnesium will vary by site. With soil testing growers can make the best decision regarding whether to use low mag lime or not. In NY lime is required to be labeled. Be sure to purchase high quality lime. Also, if you're paying a premium for less magnesium, make sure it is really low.

It's also important to keep in mind, these savings are calculated under the assumption that the desire is to maintain vine size and soil health. It is often possible to neglect potassium application for 5 years or more. Vine size will eventually decline, yield will decline, and brix will also decline. Eventually you might not even need to prune! Finally, the vineyard could be abandoned or the grower could adopt a soil remediation strategy to replenish organic matter, potassium and perhaps phosphorus levels to allow vines to recover. This remediation is intensive, expensive and must be completed without the support



of vineyard production (yields will return after). Additional nutrient applications will be necessary as availability will be low, because part of a remediation strategy would be a 5-10 plan to increase soil pH.

In general, managing fertilizer availability through pH is always important but becomes more important as fertilizer prices rise. As mentioned last month, fertilizer prices are falling. However, this trend is very slow and overall 2023 fertilizer prices could be the most expensive year for regional growers.

Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

In the Vineyard
In this week's Crop Update I would like to bring attention to the tool, NEWA, your resource for weather and science-driven IPM tools. To access this tool Click Here. Before I get started with how this pertains to In the Vineyard, here is some information on how to set Your NEWA 3.0 Profile:

Create Your NEWA 3.0 Profile
Create your NEWA 3.0 profile to take advantage of useful features including quick access pre-elected weather stations and resources, permanent database storage of important biofix data or model settings, and more. *We do not share or sell your personal information.*

Get started with NEWA 3.0 by watching these Quickstart guides:
Create and Configure Your User Profile Watch now (3:00)
Dashboard Navigation. Watch now (3:19)

Talk to us!
Reach out with to the NEWA Help Desk at any time with a note to **support@newa.zendesk.com** or submit an **online request**. An electronic work ticket is generated that is tracked until we find an answer or resolution for you.

Grape Berry Moth Model
One of the important tools in timely viticulture and IPM this week is the Grape Berry Moth (GBM) model that is available for your use. This model is a growing degree day (GDD) tool that estimates development of grape berry moth (*Parolobesia viteana*) generations, identifies treatment windows, and provides management guidelines. NEWA downloads weather parameters from weather stations across the state, so most grape growers are able to access results specific to their region. Growers are able to choose the weather station location and a biofix date (based on the timing of wild grape bloom near their vineyard) to automatically generate predictions for their area.
GBM is considered a serious pest of grapes throughout the eastern U.S. The larval stage feeds on berries and causes yield losses due to: consumption and shelling of berries, and by providing entry sites for fungi (e.g., Botrytis) that can cause cluster rots. GBM typically completes two to three generations per year in New York and Pennsylvania. Research showed that 810 degree days are required for grape berry moth to complete a generation, so in the model, a base temperature of 47.14°F is used. To target the third generation, science dictates that the accumulated GDD target is 1620.

Andy Muza previously wrote: Regular scouting throughout the season (at least weekly) is critical in determining if and where applications should be applied for GBM. A scouting protocol for GBM is described in "Bulletin 138, Risk Assessment of Grape Berry Moth and Guidelines for Management of the Eastern Grape Leafhopper". This protocol recommends selecting four different areas in your vineyard to be sampled during each scouting event. Two different areas should be checked in the interior of the vineyard and two different areas along the exterior (border) portions of the vineyard. At each of the four sampling sites, randomly select 5 vines and examine 10 clusters/vine for GBM injury. Determine separate injury levels (# injured clusters/100 clusters = % injured clusters) for the interior and exterior portions of the vineyard. It is important to keep separate injury levels for

the interior and exterior areas because border areas near wood lines/hedgerows will usually have higher levels of injury. Therefore, border areas may need an insecticide application while interior areas may not.

Scout to determine injury levels.

- Spray (if needed) as close to the designated degree day timings as possible.

- The model recommends an insecticide treatment in high and possibly intermediate risk sites when: 810 GBM degree days are accumulated for the second generation; 1620 GBM degree days for the third generation; and 2430 GBM degree days (if harvest has not yet occurred) in years that a fourth generation occurs. Insecticides such as Intrepid, Altacor, and Delegate are suggested for these timings.

- If using broad spectrum contact insecticides (e.g., pyrethroids) then applications should be delayed about 100 GBM degree days for each generation (i.e., 910, 1720, 2530 GBM degree days).
-

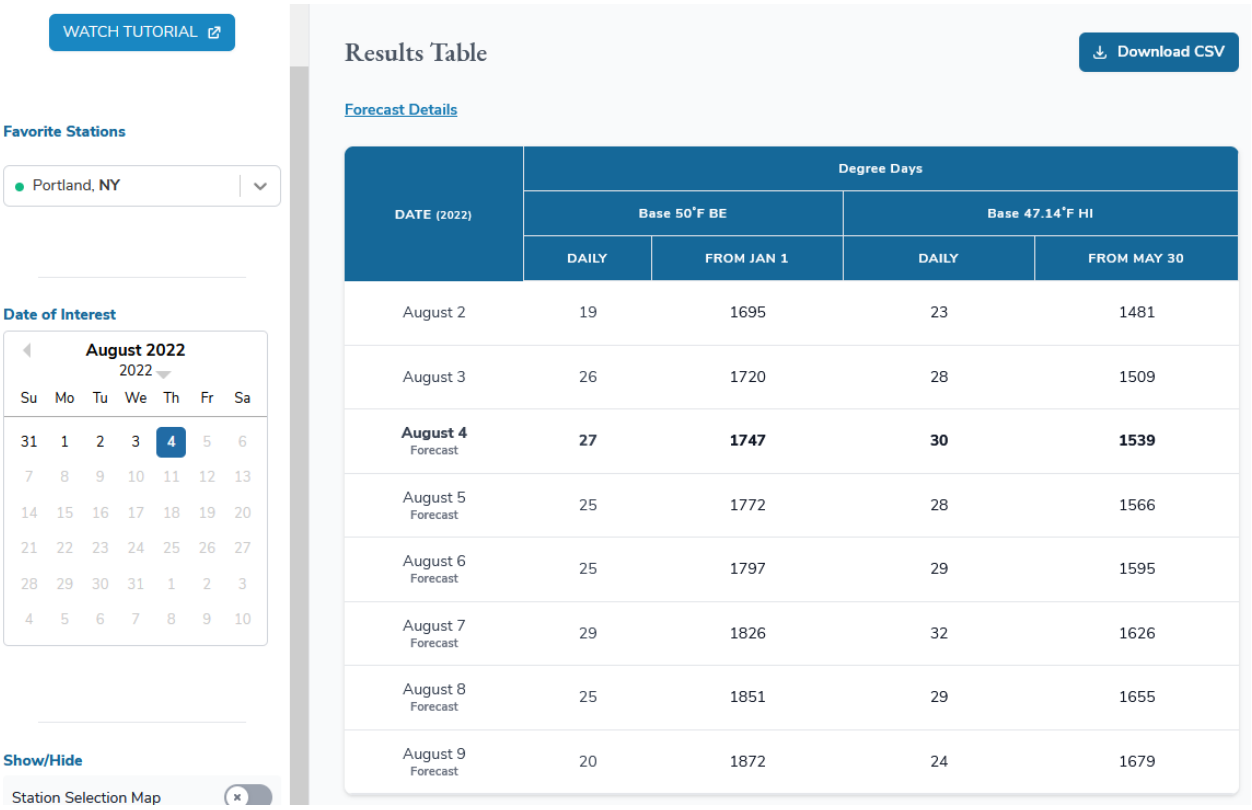
Insecticide Choices/Application Practices

- There are numerous insecticides effective for GBM which are registered for use in Pennsylvania. Consult the 2022 New York and Pennsylvania Pest Management Guidelines for Grapes.

- Rotate insecticides with different modes of action into your GBM spray program to prevent/delay insecticide resistance. Read the label to determine if a spray adjuvant and/or pH adjustment to spray water is required. Also, incorporate more selective insecticides (e.g., Intrepid, Altacor, Delegate) into your spray program which will aid in conserving natural enemies. Good spray coverage on clusters is critical. Therefore, spray every row and use appropriate gallonage, speed, pressure, and nozzles for good cluster coverage as the size of the canopy increases throughout the season.

I want to point out that it is important to take a moment and read the column titles to avoid any confusion and missed spray timing applications. Please look at Table 1. below. You will notice that there are five columns: Date, (the next four are GDD subtitles) DAILY, FROM JAN 1, DAILY, FROM MAY 30. It is the last column all the way to the right labeled FROM MAY 30 that will be the GDDs you reference for Grape Berry Moth spray timing. The MAY 30 is the date that was either generated by the model for the Wild Grape Bloom, or the date that you physically entered as Your Wild Grape Bloom date. If you choose to follow the column FROM JAN 1, that number is the accumulated growing degree days since January 1, 2022 and you will spray too early to catch that targeted generation. Please be certain that you read the labels and utilize this helpful resource to improve risk assessment and inform spray schedules as well as scouting your vineyard blocks.

Table 1. Example of the Grape Berry Moth model on the NEWA website



WATCH TUTORIAL

Favorite Stations

Portland, NY

Date of Interest

August 2022
2022

Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Show/Hide

Station Selection Map

Results Table

Download CSV

Forecast Details

DATE (2022)	Degree Days			
	Base 50°F BE		Base 47.14°F HI	
	DAILY	FROM JAN 1	DAILY	FROM MAY 30
August 2	19	1695	23	1481
August 3	26	1720	28	1509
August 4 Forecast	**27**	**1747**	**30**	**1539**
August 5 Forecast	25	1772	28	1566
August 6 Forecast	25	1797	29	1595
August 7 Forecast	29	1826	32	1626
August 8 Forecast	25	1851	29	1655
August 9 Forecast	20	1872	24	1679

For a quick reference, Kim Knappenberger put together the table on following page with NEWA stations in our region for Grape Berry Moth Growing Degree Days from the Wild Grape Bloom date for this year, please see Table 2.

Table 2. Lake Erie Region Grape Berry Moth Growing Degree Days as of August 4, 2022

NEWA Location	Wild grape bloom date*	DD total on Aug 4	Forecasted Date for 1620
Brant	May 27	1591	8/6/22
Versailles	May 30	1485	8/9/22
Hanover	May 30	1527	8/8/22
Sheridan	May 28	1625	8/4/22
Silver Creek (Route 5)	May 31	1552	8/7/22
Silver Creek (Double A)	May 28	1628	8/4/22
Dunkirk Airport	May 29	1632	8/4/22
Forestville	May 29	1553	8/7/22
East Fredonia	May 31	1473	8/10/22
Fredonia	May 31	1485	8/9/22
Brocton Escarpment	May 30	1512	8/8/22
Portland	May 30	1539	8/7/22
Portland (LERGP West)	May 29	1618	8/5/22
East Westfield	May 31	1482	8/9/22
Westfield	May 31	1509	8/8/22
Ripley	May 30	1576	8/6/22
Ripley Escarpment	May 30	1533	8/7/22
Ripley State Line	May 30	1568	8/6/22
North East State Line	May 31	1487	8/9/22
North East Escarpment	May 29	1565	8/6/22
North East Sidehill	May 30	1520	8/8/22
North East Lab	May 30	1593	8/5/22
Harborcreek	May 30	1549	8/7/22
Harborcreek Escarpment	May 31	1434	8/11/22
Lake City	May 31	1546	8/7/22
Ransomville	May 30	1598	8/2/22
Burt	June 7	1305	***
Corwin	June 1	1457	***
*Estimated date provided by NEWA website			
*** Not on forecast yet			

Updates and Information

Kimberly Knappenberger, Viticulture Assistant, LERGP

Grape Commodity Survey in the Lake Erie Region

The Lake Erie Regional Grape Program works in conjunction with the NYS IPM program to trap for three invasive species that are not known to be present in this area. We kicked off the Grape Commodity Survey in the Lake Erie Region by setting up the traps on June 6th. There are 108 traps set up in 8 vineyards and 2 nurseries. This year the target moths include *Cryptoblabes gnideiella* (Christmas Berry Webworm), *Lobesia botrana* (European Grapevine Moth), and *Eupoecilia ambiguella* (European Grape Berry Moth).

These traps are intended to remain in the vineyards and nurseries for 14 weeks and will be serviced (surveyed for the presence of moths) every two weeks for a total of 7 times.

Figure 1 This circle trap is located near vineyards and a truck stop. It is not on a Tree of Heaven because there wasn't one there, but the location is a great place to put a trap.

These traps have been serviced four times and we have not found a target moth.

In addition we are monitoring 7 Spotted Lanternfly traps across the region from Ripley to Silver Creek. These traps were set up on Monday, May 9th and are checked weekly for the presence of what the current life cycle stage would be for spotted lanternfly.

We have not collected any Spotted Lanternfly nymphs or adults. These traps do not contain pheromones to draw the insect to it but are placed on trees near vineyards that would likely be another food source for the pest and are placed around the tree so they are captured as the insects move naturally up the trunk.

NEWA Update

Part of the region got a nice shot of precipitation on Tuesday, August 1-2nd. We had four of the stations reporting over 2" of rain in about 2 hours. The stations in the area captured a wide range of results from 0" to 3.15", just another example of how different the conditions in this region can be. Hardest hit in this latest round of storms was North East and Harborcreek in Pennsylvania. For the most part everyone was happy with the exception of the washout in driveways and roads. Here is the breakdown of that storm:

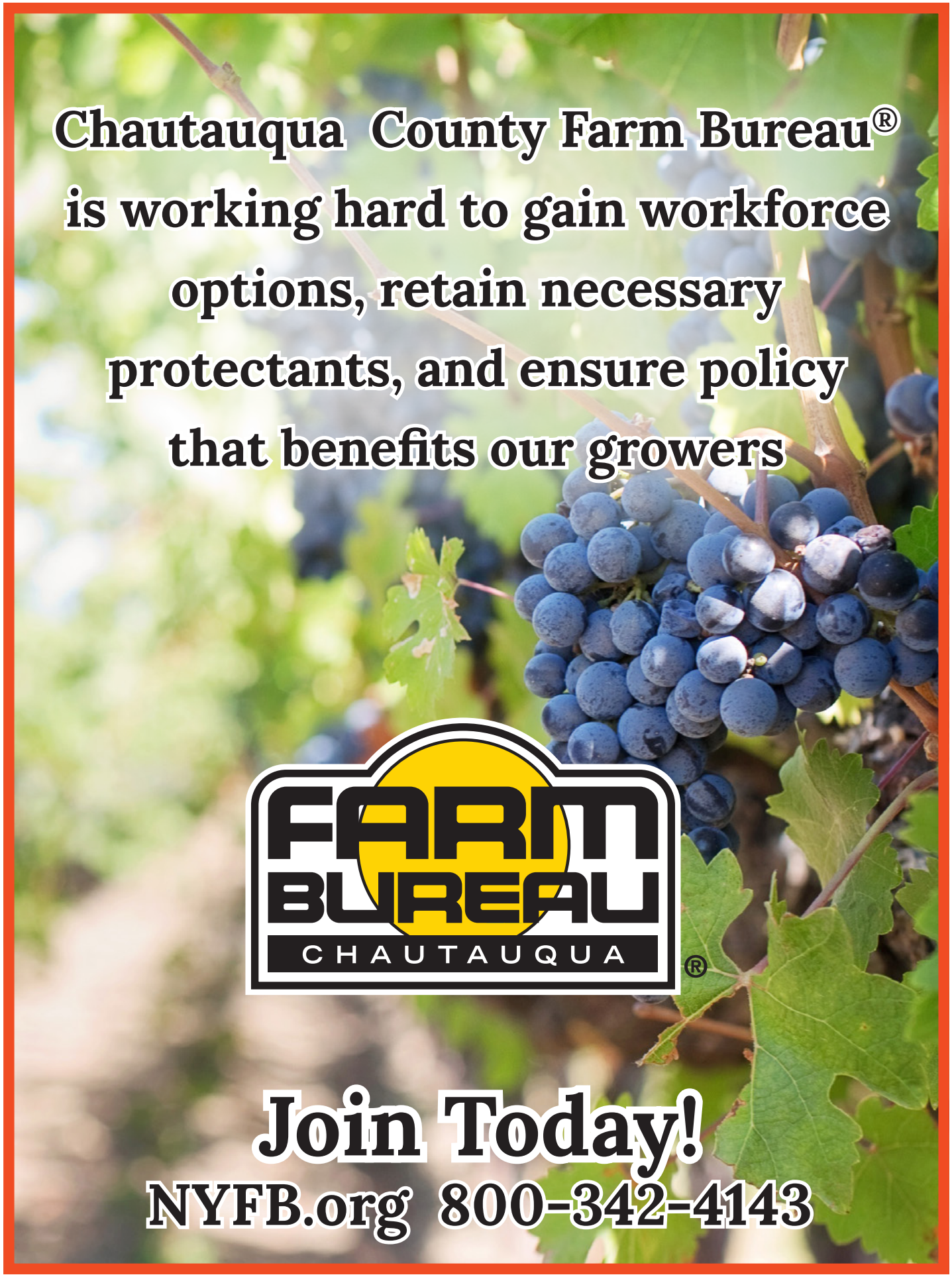
Ransomville	0.00"	East Westfield	0.31"
Brant	0.01"	Westfield	0.39"
Versailles	0.03	Ripley	0.96"
Hanover	0.01"	Ripley Escarpment	0.85"
Sheridan	0.01"	Ripley State Line	0.96"
Silver Creek (Route 5)	0.03"	North East State Line	1.41"
Silver Creek (Double A)	0.01"	North East Escarpment	3.15"
Forestville	0.05"	North East Sidehill	2.83"
East Fredonia	0.06"	North East Lab	2.29"
Fredonia	0.07"	Harborcreek	3.04"
Brocton Escarpment	0.13"	Harborcreek Escarpment	1.49"
Portland	0.15"	Lake City	0.02"
Portland (LERGP West)	0.22"		

Hopefully the forecasted rains this coming week will hit the rest of the region – but in a good way!

VIP

With the deadline approaching we have been working to get more applications moving to help with vineyard removals before the end of this program. We are still accepting applications for the Vineyard Improvement Program. Any Concord vineyard removal must be done during this year so that the paperwork can be finalized before March 31, 2023. Unless you have done a planting in the past few years, it is likely that we will only be able to reimburse for removal projects. This means that we will still pay 50% of removal costs up to $1,500 per acre ($50,000 maximum) but there is not time to replant to vineyards or orchards at this time. These removal projects will still need to be planted to another agricultural crop in order to qualify for the reimbursement. Cover crops and field crops are a quick way to finalize the project. At the end of the season I would need to see complete removal of the trellis and vines (no to few vines growing in the seed crop) with 4-6" of growth of the seed crop.

To learn more about how the program works visit https://lergp.com/about-vip. If you would like to apply click on VIP Application or click this link https://lergp.com/vip-application. We are in the process of asking for an extension and will keep you updated on the status. Please feel free to call or email Kim with any questions or to see if this will work for you. Ksk76@cornell.edu or 716-792-2800 ext 209.


Chautauqua County Farm Bureau®
is working hard to gain workforce
options, retain necessary
protectants, and ensure policy
that benefits our growers
FARM
BUREAU
CHAUTAUQUA
®
Join Today!
NYFB.org 800-342-4143

Thank you!

Thank you to everyone who hosted a coffee pot meeting for the program this season. We greatly appreciate you opening your doors to us and your fellow growers. We had another successful coffee pot meeting season with great attendance and discussion at all. We look forward to the 2023 growing season. If you would like to host a coffee pot meeting next season please give Katie a call (716) 792-2800 ext 201 or e-mail her.

2022 Coffee Pot Meeting Hosts

Arrowhead Winery
Militello's Farm Supply
John Mason
Andrew Nichols
Alicia & Zach Schneider
Knight Farms
Trolley Line Vineyards
Dan Sprague
Betts' Family
Paul Bencal
Liberty Winery
Beckman Farm
Arrowhead Spring Winery