

CROP UPDATE March 17, 2022

Golden Sky at CLEREL-Kim Knappenberger

Cornell Cooperative Extension Lake Erie Regional Grape Program



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

More Price Updates...and Supply Constraints

Almost immediately after the beginning of the war in Ukraine it became clear that there would be an impact on fertilizer prices. February brought a respite from price increase, and we were starting to see declines in price. The last week quickly reversed that trend. DAP, MAP and Potassium all surpassed their recent highs. Urea markets are mixed and should be most effected by Russian sanctions. Nationally urea prices should continue to rise based on market conditions. Locally, urea prices were lagging national prices and now are seeing spikes in price that exceed previous highs. FOB local prices should easily test \$1,000 per ton and beyond.

Liquid fertilizer, though not a huge player in the local grape market has fared worse. Current price increases are significantly more and the cost per unit of N continues to spread. Relatively speaking urea keeps looking cheaper and cheaper.

News on other critical supplies facing grape growers has not been much better. Crimped wire is in short supply and wire continues to test record high prices. Crimped wire not already stocked will likely be unavailable for installation before the growing season. If these delays do not get worse, they should not interfere with repairs or new plantings. Growers may not have the ability to replace wire in existing vineyards and that needs to be done before the growing season begins.

News on posts has been similar. The only difference is the post shortage began earlier and more growers had contacted me with post concerns prior to harvest of last year. Hopefully that means growers had opportunities to stock posts earlier. This wouldn't solve the price problem as much of it relates to trucking and post prices have been high for a while now.

Not a lot to be said about fuel prices other than that they are expensive. The only good news here is that distribution is less problematic. The market does seem ready to respond. As Russian oil became toxic oil prices increased by about 40%. Since then market volatility has been extremely high. 10% swings in price have occurred on numerous occasions. Oil above \$120 is likely to open up new markets as well as OPEC supply. The industry has been on pause waiting to develop and grow, unable to do so with oil prices between \$40 - \$80 a barrel for years. We'll see short-term problems here and potentially some scary volatility that makes planning for business difficult. Over the long-term we should see supply increases leading to more stable prices.

Not a lot of news this week that you probably haven't already heard. The one take away is the difficulty in procurement and the costs associated with these inputs continues to rise. February was a month that made it look possible that price pressure would slow. Current realities in Europe certainly dashed those hopes.

Jennifer Russo, Viticulture Extension Specialist, LERGP

The 2022 In-Person Conference

Life resembled the ways things were pre-pandemic yesterday. The Lake Erie Regional Grape Team held our In-Person Session of the Winter Conference Series at the Williams Center on the State University of New York at Fredonia campus. This was the first in-person conference for us since 2019. The first floor was buzzing with growers gathering with one another discussing the last two years surrounded by vendors eager to discuss what they have to offer. I made sure to take a moment and look around at all of the attendee faces and found myself smiling being able to see their smiles.

The presentations were full of educational materials. The morning session started with Cornell fruit physiologist, Dr. Jason Londo, with a discussion on how the grapevines go into and out of dormancy and how tracking this information can be used as a tool for growers. This was followed by Dr. Richard Stup, Cornell's Agricultural Workforce Specialist, who presented the current trends in the agricultural workforce labor pools, why laborers are difficult to find, and what this means for our industry.

The pesticide recertification credit portion of the conferenced offered 3 NYSDEC category credits and 6 PDA credits. During this session, we learned about the VitisGen2: New Technologies Accelerate Disease Resistant Cultivar Development, from Lance Cadle-Davidson, USDA, Cornell University work followed by Cornell's Grape Pathologist, Dr. Katie Gold. Katie presented on how disease resistance occurs, what growers can do to increase the longevity of the chemicals that we have in our tool box, and introduced research about incorporating biopesticides and future hyperspectral work to give growers early disease detection before pathogen numbers are high. Dan Olmstead, from NYS IPM, discussed the new NEWA website and walked us through a demonstration on how the grape pest models present information and the ease of use. Then Dr. Greg Loeb, Cornell's fruit entomologist, presented on his work with vectors of red leaf virus and sour rot and then gave an introduction on the Spotted Lanternfly, which segued into our final portion of the credit session. Credits finished with two talks on the invasive Spotted Lanternfly. Brian Eshenaur, the lead on SLF for NYS IPM presented where it has spread, the life cycle, trap trees, and reporting, while Dr. Eric Clifton, currently of BioWorks, discussed his graduate work at Cornell using fungal pathogens as a management strategy for this pest, how to scout for it and the best places to look to find this tricky bug.

The afternoon session kicked off with Joseph Amsili from Cornell Soil and Crop Science and the NYS Soil Health Initiative, myself, and Concord grower, Bob Betts, presenting a case study on over a decade of a cover cropping experiment and soil health. This talked transitioned nicely into Dr. Terry Bates talk about how the nutrients in healthy soils are made available to the grapevine, his new SCRI grant collaboration on Sensing Grapevine Plant Nutrition, and how using tools developed by the My Efficient Vineyard SCRI benefits his work. The final presentation of the day was Nick Gunner of Orbitist, who gave a live demonstration of the MyEV Tool. He walked growers through how to set up data collectors so that they can use their own senses to collect data out in their own blocks using just their smart phone and then visualize it on a spatial map.

All in all, the day's events felt easy and good. We all fell back into the flow of in-person like the last two years were a distant past. There were a few nods to how a virtual world can be helpful in our educational efforts closing the distance with some presenters unable to make it in person. Growers were engaged in the presentations, received materials to take home with them, and had many questions for the presenters, showing interest in the material. It was great to listen to people conversing in person, discussing their woes, challenges, and optimism for the future. Observing the smiles in the crowd and hearing the laughter in attendee conversations was a joy for me and I am calling this Winter Conference finale a success. Thank you to the LERGP team, the staff at SUNY Fredonia, CCE Chautauqua County, the many vendors, all of the talented speakers, and to our growers for making the 2022 In-Person Winter Grower Conference SUCCESSFUL!





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Call for Collaboration: Tree-of-Heaven Management in Erie County

The Lake Erie Watershed Cooperative Weed Management Area (LEW-CWMA) is sponsoring a program to focus control efforts on the invasive treeof-heaven, which is the primary host tree for the spotted lanternfly – a major pest that is spreading throughout Pennsylvania.

Tree-of-heaven is a fast-growing tree native to China that quickly spreads via large bundles of seeds. Lanternflies were first introduced to Pennsylvania in 2014 in Berks County, and have since spread to many



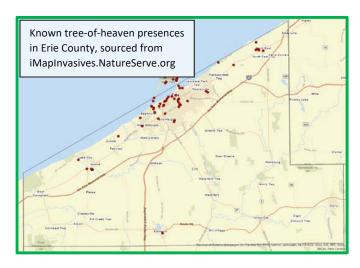
other counties and states. Lanternflies readily feed on many fruit crops, most notably grapes, and have the potential to devastate orchards and vineyards.

To prevent spotted lanternfly from establishing in Erie County, the LEW-CWMA is targeting tree-ofheaven for rapid removal and control. We are looking to collaborate with landowners in the Lake Erie region, especially those who own vineyards and orchards, as well as other interested members of the public, to eliminate tree-of-heaven in the county.

LEW-CWMA plans to offer landowners assistance in tree-of-heaven management by:

- Providing materials for identifying tree-of-heaven and spotted lanternfly
- Aiding in surveys and mapping of tree-of-heaven
- Giving recommendations on treatment and removal techniques
- In some cases, assisting in treatment and removal of tree-of-heaven

If you wish to participate in this program and take the next steps in helping us eliminate tree-of-heaven, please contact <u>Tom Cermak</u> (information below) to stay up-to-date on workshops, events, and resources. You can register now for an upcoming webinar on <u>May 25, 2022</u>, by navigating to EventBrite.com and searching "Call for Collaboration". If you are aware of tree-of-heaven growing on your property, consider submitting a public report to PAiMapInvasives.org. A link to the public report form is located on the website's homepage in the top banner.



Thomas J. Cermak, Coastal Outreach Specialist at Pennsylvania Sea Grant – Penn State University 301 Peninsula Drive, Suite 3, Erie, PA 16505 Office: 814-898-7085; Email: <u>tjc29@psu.edu</u>

Tips in Preparation of Herbicide Shortages in 2022 – Tree Fruit and Small Fruit Crops

Thierry E. Besançon, Rutgers University, and Lynn M. Sosnoskie, Cornell University

Many growers in the US have been focused on predicted herbicide shortages in the upcoming field season. While the primary concerns have surrounded glyphosate and glufosinate, **there is increasing apprehension that active ingredients of importance to tree fruit and small fruit growers may also be affected**. Although the supply change is dynamic, chemical stocks may become, and remain, tight at the local or regional level as growers try to fill gaps in their toolboxes. As spring residual herbicide are soon to be applied, please consider the following when planning for the 2022 season.

Important note: Not all herbicides are available in all crops in both New Jersey and New York. Always review current labels before applying products.

Successful Weed Identification, Regular Scouting and Detailed Field Records are Crucial for Optimizing Weed Control Success

The first step in developing a novel herbicide program is knowing what species are present and determining which combination of products will be the most effective (and affordable) at suppressing them. Not all active ingredients are equally useful against all species and careful consideration needs to be paid to each chemical's spectrum of control. Please, carefully review herbicide effectiveness tables for various weed species that are available in the 2022 Commercial New Jersey Pest Control Recommendations for blueberry, tree fruits or grape (<u>https://njaes.rutgers.edu/pubs/</u>). Similar tables are available in Cornell's weed control guides (<u>PMEP Guidelines (cornell.edu</u>))

Familiarize Yourself with Chemical Substitutes before Applying Them over Many Acres

Some switches may be intuitive (e.g. using Poast (sethoxydim) or Fusilade (fluazifop) in place of clethodim where allowed) while others may be more complicated (e.g. using a tank-mixture in place of a single product). In addition to knowing a product's target species, become acquainted with each herbicide's labeled rate structure and spray volume, use patterns (e.g. application timing), environmental limitations (e.g. soil type or temperature restrictions), adjuvant requirements, and potential interactions with tank-mix partners. Not all chemicals are compatible with each other, and antagonism can reduce weed control efficacy while enhancing crop injury concerns. Contact your Extension Specialists if you have any doubt regarding physical compatibility and efficacy of herbicides mixtures.

Soil-Applied Preemergence Herbicides are Critical Tools

Soil-applied preemergence herbicides are very useful tools for suppressing weeds that emerge with the crop; these plants are the most injurious as early season competitors are very likely to reduce yields. Like postemergence products, soil-applied herbicides must be carefully selected to balance crop safety with weed control needs. Pay attention to rate requirements according to soil type, as this can influence both efficacy and injury. Preemergence herbicides need to be moved (aka activation) into the soil solution (via either rainfall or irrigation) where they are taken-up by emerging weed seedlings; delays in activation can reduce overall performance if some weeds continue to germinate and emerge under low soil moisture conditions. Delays may also facilitate the degradation of some products susceptible to breakdown in sunlight (i.e. photolysis). Be aware that trickle irrigation may cause less effective and less consistent weed control by washing off residual

herbicides from top soil where weeds germinate, thus increasing herbicide application costs. **When possible, use overlapping residual products to suppress weed emergence throughout the season**. Some active ingredients may have both preemergence and postemergence activity (e.g. flumioxazin (Chateau) or simazine (Princep)).

Timing Matters

Postemergence (i.e. foliar) weed control should be undertaken when weeds are small and succulent. Herbicide labels will have specific recommendations regarding the optimal size for treatment. For instance, clethodim (Select Max) and sethoxydim (Poast) have a maximum height or lateral growth requirement of 6 inches for effective control of goosegrass or crabgrass. Weeds are more sensitive to control measures when they are small and succulent, so rapid identification and management will improve control success. Because many foliar-applied herbicides can also damage crops, as well, always follow label guidance to reduce risk of injury.

Optimize Herbicide Application Rate for Postemergence Applications

Target using the lowest effective herbicide rate to stretch your herbicide supply. For example, instead of applying 32 or 44 oz/acre of a glyphosate brand product, consider using the standard rate on the label such as 22 oz/acre for Roundup PowerMax. **Again, timing of application with regards to weed size will be critical to optimize your herbicide supply**. The smaller the weeds, the less herbicide you will have to apply to control it! Therefore, frequent scouting as highlighted above will be very important to optimize your herbicide application and stretch your herbicide supply.

Don't Skimp on Adjuvants

If herbicides are going to be in short supply, then there may be fewer shots to control weeds. If there are fewer shots available, make every shot count as much as possible. **Follow label recommendations regarding the inclusion of water conditioners, surfactants, etc..., to maximize product efficacy**. Refer to point number two about potential compatibility concerns when tank-mix partners are involved.

Get Perennial Weeds under Control

Perennial species such as Canada thistle, goldenrods, bindweed or quackgrass are frequent and troublesome weeds of tree fruit and small fruit crops. Because control of these weeds requires the use of systemic herbicides that may be in short supply (i.e. glyphosate), appropriate timing of application will be critical to maximize herbicide efficacy. For example, Canada thistle should be sprayed with a systemic herbicide in late spring after flower buds started to develop whereas Virginia creeper or poison ivy should be targeted in mid- to late summer after vines flowers but before fall color appears in the foliage. Use effective alternatives such as clopyralid (Stinger) for control of leguminous and composite (e.g. Canada thistle) weeds or soil-applied pronamide (Kerb) for control of perennial grasses where authorized. This may help you to reserve the use of glyphosate for perennial weeds that cannot be efficiently controlled by other products.

Consider Non-Chemical Weed Control Strategies When and Where Appropriate

This includes hand weeding, cultivation, and mowing practices. Like herbicides, these practices are not effective against all species at all times. For example, while cultivation can control many weed seedlings, particularly at the white-thread stage, soil disturbance is less effective against well-developed plants. In the case of some perennials (for instance, field bindweed or Canada thistle), cultivation contributes to break up and disperse root fragments within and across fields, facilitating dispersal. Ultimately, plan for hand-weeding escapes prior to the weeds setting seeds as this will

help reducing the weed seedbank for future growing seasons.

Plan Ahead Now

2022 could be a difficult year if many crop production and protection chemicals are limited. Herbicide shortages could impact weed control success in the coming growing season...and beyond. Weeds that are not controlled in 2022 will set seed that will cause problems in the future. **Planning now can help with weed management in both the short and long term**.

Sharpen Your Spray Program-Free!

Learn about grapevine disease management from experts during this virtual event!

WHEN: Mon., Apr. 4, 2022 (3:00 PM - 4:30 PM ET)

REGISTRATION DEADLINE: April 4, 2022 2:00 p.m.

REGISTER HERE!

Join us for Sharpen Your Spray Program featuring regional grapevine disease management experts from Michigan State, Cornell AgriTech, Penn State, University of Maryland, and Virginia Tech. Current, phenology-based, seasonal management programs of major grapevine diseases will be reviewed. The event will con-

clude with an open discussion/question and answer period with the panel of grape pathology specialists.

This event is being offered at no charge to participants. Registration is required to receive the link to access the webinar. Registrants will also receive access to the webinar recording.

WHO IS THIS FOR? Vineyard owners Winery owners Vineyard managers Winemakers

WHAT WILL YOU LEARN? Management strategies for major grapevine diseases, including:

Powdery mildew Downy mildew Black rot Phomopsis Bunch rots (botrytis, sour rot)



Respirator Fit Testing

NYCAMH is once again holding their annual respirator fit testing clinics throughout the state. These clinics are designed to meet all Worker Protection Standard (WPS) requirements for pesticide handlers who are required to use a respirator when applying certain pesticides (including certified private and/or commercial applicators). Below is the list of dates for clinics being held in DEC regions 8 & 9.

April 7	Orleans County
April 8	Niagara County
May 12	Ontario County
May 13	Yates County

To schedule an appointment, growers should contact NYCAMH directly at 800-343-7527 or <u>FitTest@bassett.</u> org. More information about these clinics, including cost information and the full statewide schedule, is available at: <u>https://www.nycamh.org/programs-and-services/respirator-fit-test-clinics.php</u>.





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