

Cornell Cooperative Extension Finger Lakes Grape Program

Quarterly Report: April—June 2021

Program Highlights

- The FLGP adapted its grower meeting schedule for the 2021 season by offering a mix of virtual and in-person options for our Spring IPM and Tailgate meetings this year. After the experience of virtual meetings last year due to the COVID-19 pandemic, many growers have come to appreciate that they can attend a meeting without having to drive long distances to get there and still get the information that they want. At the same time, some growers either cannot or prefer not to attend meetings online, and therefore the in-person option allowed them to get important information, ask questions, and receive pesticide recertification credits. Growers said that they appreciate having the option to choose how to participate in meetings, and therefore we will likely continue using this mixed format for our regular meetings during the growing season.
- The FLGP has received funding for three projects in the upcoming year. Two of them are continuations of ongoing projects – one focused on a non-chemical method of reducing crop losses from sour rot, and our ongoing participation in the Cooperative Agricultural Pest Survey (CAPS) that monitors for new invasive pests in vineyards. The third project is a cooperative project with scientists and engineers to help educate growers about the potential uses of digital agriculture tools to improve vineyard management so that growers can provide industry-focused feedback to the scientists working on these tools.

FLGP Goes ‘Hybrid’ With 2021 Meetings



Greg Loeb speaking at the in-person Spring IPM meeting on May 11.

One of the lessons that we took from 2020 is that there can be benefits to virtual meetings, such as less driving and not worrying about weather. However, not all of our clientele are able to attend virtual meetings or simply prefer not to do so. In order to address the needs of both groups this year, the FLGP arranged for a ‘hybrid’ approach to this year’s meeting season. For the second consecutive year, our Spring IPM meeting was held virtually over Zoom, with over 100 growers participating in the meeting. Two weeks later, we were able to

hold an in-person version of the IPM meeting at a farm in Yates County, which was attended by about 15 growers, most of whom could not attend the virtual meeting earlier.

Our Tailgate Meetings are also split between virtual and in-person meetings, with four virtual meetings to be held, and three in-person meetings. Growers are still eligible to earn pesticide credits at every meeting. Feedback from growers in both settings are very positive so far. The growers at the in-person meetings have been appreciative of having the option of not using technology but still receiving the information that they need, while growers who have attended the virtual meetings appreciate the time savings and convenience of being able to attend a meeting from their home or office. It is highly likely that we will continue with this combination of in-person and virtual Tailgate Meetings in future years.

Grant Funding

Funded Projects

Evaluation of a Berry Cuticle Supplement to Reduce Cluster Rots in Vineyards. Submitted to New York Wine & Grape Foundation/Lake Erie Regional Grape Research & Extension Program. Proposed budget: \$19,682 (Year 3 of three-year project). Collaborator: Alice Wise – CCE Suffolk County

This project is evaluating the effectiveness of a product called ‘HydroShield’ at reducing Botrytis bunch rot and sour rot in grapes. HydroShield is a proprietary product currently under development at Oregon State University, but is not yet commercially available. HydroShield is purported to thicken the berry cuticle and therefore provide improved resistance to egg laying of *Drosophila* fruit flies. In preliminary tests in Oregon, when sprayed on grapes, HydroShield has reduced egg laying by *Drosophila suzukii* (spotted wing drosophila) and subsequent development of cluster rot. We did not see a significant impact from the treatment in 2019 or 2020 due to the very low disease pressure that we had at the end of the season.



Human-Centered Hyperspectral Sensing Robot and Analysis System for Plant Stress Research and Management. Funded by Cornell Institute for Digital Agriculture. Total Budget: \$150,000 over 2 years. Collaborators: Yu Jiang – Cornell AgriTech, Qian Yang – Dept. of Information Science, Katie Gold – Cornell AgriTech.

This project is focused on expanding the capabilities of several different technologies that have been developed in recent years that can significantly improve the ability to detect grape pathogens and their associated diseases. These tools will be able to enhance the capabilities of researchers in the lab, but also potentially make their way to the field to improve the prediction and early detection of disease development. The project will use a “human-in-the-loop” (HITL) approach to development of these tools, which essentially means that growers will be part of the training system for the AI that is used for disease detection. The FLGP will work with other project members to create workshops that will serve as an educational platform providing users with basic knowledge and literacy about digital agriculture to understand and potentially adopt the technology.

2021 Cooperative Agricultural Pest Survey (CAPS). Funded by USDA via NYS Dept. of Ag & Markets. Budget: \$19,050. Collaborators: Jennifer Russo – LERGP, Alice Wise – CCE Suffolk County, James O’Connell – CCE Ulster County, Juliet Carroll – NYS IPM Program.

We are once again participating in the CAPS project, which is a multi-state effort focused on the early detection of invasive agricultural pests. In 2021, traps are being placed next to two nursery blocks and in 16 area vineyards throughout the Finger Lakes. The traps are checked and serviced every two weeks by our summer field technician, Ellen Coyne. Potential targeted pests are sent to a lab at Cornell for identification. The pests being monitored this year are European Grape Vine Moth, European Grape Berry Moth, and Christmas Berry Worm. Visual surveys for Spotted Lanternfly and Grapevine Red Blotch Virus are also being done in multiple vineyards this year.

Grant Funding

Proposals Submitted

Cost effective spatial data visualization and decision support for small and medium-sized vineyards.

Submitted to USDA-NIFA-AFRI Agriculture Economics and Rural Communities Program: Small and Medium-Sized Farms. Total Budget: \$650,000 over 3 years. Collaborators: Terry Bates – Cornell Lake Erie Research & Extension Laboratory, Katie Gold – Cornell AgriTech, Yu Jiang – Cornell AgriTech, Jennifer Russo – Lake Erie Regional Grape Program.

This project will continue the development of the “MyEV” digital viticulture tool developed by Terry Bates and his colleagues as part of the recently completed SCRI-funded Efficient Vineyard project. The goal of the project is to enable the adoption of precision viticulture technology and practices by expanding the capabilities of the MyEV tool, allowing growers to easily upload their own vineyard data and receive prescription management maps based on that data. The FLGP and LERGP will be working with a small group of growers in each region to begin using spatial data from their own vineyards in order to address issues of importance on each of their farms.

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The Finger Lakes Grape Program is a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extension Associations in Ontario, Seneca, Schuyler, Steuben, Wayne and Yates Counties.

