

# Cornell Cooperative Extension

## Finger Lakes Grape Program

Quarterly Report: July-September 2019

### Program Highlights

- Research being done in the Finger Lakes and Long Island is looking at two new materials that could help to reduce late-season cluster rots, especially sour rot, which can cost growers significant yield and revenue.
- More than 50 growers attended the four final Tailgate Meetings of the season, which were held in Seneca, Steuben, Wayne and Yates counties. One of the main topics during these meetings was how to develop a chemical rotation for materials that control fruit flies, an important factor in the spread of sour rot in grapes.
- The FLGP completed its seventh season participating in the Cooperative Agricultural Pest Survey project, which is a nationwide project looking for early signs of new invasive species in vineyards. None of the targeted species, including spotted lanternfly, were identified during this year's survey.
- A research project with Cornell's Enology Extension Lab, examining the influence of sun exposure on color compounds in red hybrid grapes, was selected for a poster presentation at the 10th International Workshop on Anthocyanins in Trentino, Italy.

### FLGP and Long Island Grape Programs study new materials to control cluster rots

One of the most challenging aspects of growing certain grape varieties in New York is management of late-season cluster rots, which can cause growers to lose significant amounts of yield and revenue. Vineyard practices like removing leaves from the fruit zone can improve air flow and sun exposure to help dry the fruit after a rain event, but chemical controls

remain an important part of managing cluster rots. These chemicals, however, are very expensive and there is increasing concern about their effectiveness due to the development of resistance to those materials. In addition, recent research has found that fruit flies are an important factor in the spread of the microbes that cause these rots, particularly sour rot. In 2018, the FLGP and Cornell researchers confirmed that a population of fruit flies at a Finger Lakes vineyard is already highly resistant to three of the four materials currently labeled for managing fruit flies in New York. This development of resistance has highlighted the need for options beyond chemical controls to manage cluster rots.

Recent work at Oregon State has resulted in the development of materials that enhance the cuticular layer of fruit, making them more impervious to splitting. They were initially developed to prevent cracking in cherries, but in a cooperative study with our colleague Alice Wise at the Long Island Horticultural Research & Extension Center, we are investigating if they can also reduce splitting in grapes. When berries split, they are much more susceptible to infection by the organisms that cause cluster rots. By preventing splitting, we can reduce the occurrence of cluster rots which will mean less use of pesticides close to harvest, reduce the potential for resistance development to the chemicals that are used, and improve growers' yields and revenue by improving the overall quality of their crop.



## Tailgate Meetings



The FLGP continued its annual series of Tailgate Meetings in 2019. These meetings are held at various farms around the Finger Lakes region every other Tuesday during the growing season, and offer opportunities for growers to interact with each other and with FLGP staff. There is no set agenda for each meeting, rather the discussion is guided by what has been happening in vineyards recently, updates on field trials being conducted by the Grape Program or other Cornell faculty, updates on important issues, growers' own observations, and anything else that is on their minds. There is no cost for the meetings, and growers are able to earn pesticide recertification credits as well.

Much of the discussion at these meetings during the second half of the season focused on disease management, especially downy mildew and late-season sour rot. Both of these diseases can have major impacts on the quantity and quality of fruit at harvest, and managing them has become more of a challenge in recent years. At these meetings, we shared the latest information about management options and recommendations for a rotation schedule for chemical treatments in order to reduce the likelihood of resistance development in fruit fly populations, which are responsible for the rapid spread of the causal organisms of sour rot. Several growers indicated that these recommendations were implemented on their own farms this year, and will be in future seasons as well.

More than 50 growers attended Tailgate Meetings this quarter in the following locations:

- July 9 – Airy Acres Vineyard (Interlaken, NY)
- July 23 – Dr. Konstantin Frank's Vinifera Wine Cellars (Hammondsport, NY)
- August 6 – Boom Point Farm & Vineyard (Williamson, NY)
- August 23 – Hermann J. Wiemer Vineyard (Dundee, NY)

## FLGP in the News

"The Increasing Threat of the Spotted Lanternfly." Seven Fifty Daily, published August 19, 2019. Link: <https://daily.sevenfifty.com/the-increasing-threat-of-the-spotted-lanternfly/>

"Will Our Rieslings Survive?" Ithaca Journal, published September 14, 2019. Link: [https://www.ithaca.com/news/ithaca/will-our-rieslings-survive/article\\_14f63e72-d4ac-11e9-bffc-d3f41c1b36a3.html](https://www.ithaca.com/news/ithaca/will-our-rieslings-survive/article_14f63e72-d4ac-11e9-bffc-d3f41c1b36a3.html)

## Cooperative Agricultural Pest Survey

For the seventh consecutive year, the FLGP has participated in the nationwide Cooperative Agricultural Pest Survey (CAPS), which is a nationwide effort to monitor for invasive pest species in a variety of agricultural crops, including grapes. This year, pest-specific traps were set up in 18 sites throughout the Finger Lakes region, and monitored every two weeks by Ellen Coyne, one of our summer field technicians. The trapping network was set up to monitor for Light Brown Apple Moth, European Grapevine Moth, and European Grape Berry Moth.



In addition to the traps used to monitor for these invasive insects, visual inspections were conducted twice during the field season for evidence of other invasive pests, including Grapevine Red Blotch virus and Spotted Lanternfly (SLF). We can only conduct visual inspections for SLF at this point because there is no pheromone currently available to attract the insect to a trap.

No positive identifications were made of any of the targeted pests this year. On a related note, we have not received any notifications about further findings of SLF in the Finger Lakes this year.



The three primary targeted insects in the CAPS 2019 project in New York (l to r): light brown apple moth, European grapevine moth, European grape berry moth.

## Publications and Presentations

Sun, H., Loeb, G., Walter-Peterson, H., Martinson, T., Scott, J. "Insecticide Resistance in *Drosophila melanogaster* (Diptera: Drosophilidae) is Associated with Field Control Failure of Sour Rot Disease in a New York Vineyard." ASEV-Eastern Section Annual Meeting, July 16, 2019 (Geneva, NY).

Dadmun, C., Walter-Peterson, H., Mansfield, A.K. 2019. Effect of Sun Exposure on the Evolution and Distribution of Anthocyanins in Interspecific Red Hybrid Winegrapes (poster). 10th International Workshop on Anthocyanins, September 9-11, 2019 (San Michelle all'Adige, Italy).

## Cornell Cooperative Extension Finger Lakes Grape Program

Hans Walter-Peterson—Team Leader  
Donald Caldwell—Viticulture Technician

[flgp.cce.cornell.edu](http://flgp.cce.cornell.edu)

*"Cornell Cooperative Extension is an equal opportunity, affirmative action educator and employer"*

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.

