# Cornell Cooperative Extension Lake Ontario Fruit Program

## Quarterly Report October - December 2017



**Overview:** The later part of September into nearly the entire month of October brought summer temperatures that were seldom seen during actual summer. October was one of the warmest months on record. Conditions were relatively dry; however, fruit size in apples was still very good, thanks in part to adequate moisture in the late spring during the cell division phase. While some varieties struggled to get adequate color, most fruit was harvested in a timely fashion due to dry conditions and adequate labor. The finishing of performing tasks/collecting data on applied research projects was the principal focus for the team. Mario continued to work on numerous applied research projects, including in pursuing his PhD. Tess wrapped up a very busy field season by transitioning into annual meetings, in which she presented research results, including at the Entomological Society of America. Craig completed the Harvest Maturity Program for the season and extended maturity testing by continuing to evaluate new, late-maturing varieties.

**<u>Team News:</u>** The search to fill the Business Management position on the team produced several new candidates for the second round. Three strong candidates were selected for a phone screening, producing two candidates for phone interviews with the full search committee. Both candidates will be brought in for full in-person interviews in early March.

**Educational Programs**: Final preparations were made for the statewide fruit & vegetable meeting, the Empire Producers Expo in Syracuse (January 16-18) and nearly finalized for the LOF Winter Fruit Schools in Lockport & Newark (February 5-6). We have excellent programs in store with invited speakers from out of state at both conferences.















| Specialist       | Site<br>Visit | Phone/Email/Text |
|------------------|---------------|------------------|
| Grasswitz        | 0             | 2                |
| Kahlke           | 7             | 118              |
| Miranda-<br>Sazo | 20            | 45+              |



|       | Project/Field Activity  | 1 <sup>0</sup> LOF Person | Project/Field Activity  | 1 <sup>0</sup> LOF Person |
|-------|---|---------------------------|---|---------------------------|
| Se la | Pruning Workshops   | Miranda-Sazo              | Cornell Digital<br>Agricultural Initiative  | Miranda-Sazo              |
|       | Comparing seasonal nutrient<br>requirements between<br>Honeycrisp and Gala trees on<br>M.9 rootstock (VanDeWalle<br>rootstock site) | Miranda-Sazo              | Honeycrisp nutritional<br>project with Lake<br>Ontario Fruit Inc., (five<br>growers, 31 Honeycrisp<br>sites in Orleans County)      | Miranda-Sazo              |
| 9     | Quantifying nutrient<br>requirements and Ca uptake<br>and partitioning between<br>leaves and fruit of<br>Honeycrisp                 | Miranda-Sazo              | Organized 5 Orchard<br>Tours  | Miranda-Sazo              |
|       | USDA-SCB – Measuring &<br>Extending the Benefits of a<br>More Accurate Honeycrsip<br>Harvest Prediction                             | Kahlke                    | ARDP – Survey of Apple<br>Trees for Viruses   | Kahlke                    |
| 8     | ARDP – Crop Load and<br>Harvest Management for<br>Hard Cider Orchards   | Kahlke                    | Harvista/Retain trials,<br>testing different<br>timings and<br>combinations on Gala<br>and Honey Crisp to<br>increase fruit quality | Kahlke                    |
|       | Leopard Moth ( <i>Zeuzera pyrina</i> ) in apples  | Grasswitz                 | Brown marmorated stink bug trap efficacy  | Grasswitz                 |
| a an  | USDA Cooperative<br>Agricultural Pest Surveys   | Grasswitz                 | Sudden Apple Decline  | Grasswitz                 |



### **Quarterly Highlight for Integrated Pest Management**

### **Highlight:**

#### European Cherry Fruit Fly: A New Invasive Pest for the USA found in Niagara County

Background: Exotic invasive pests are an increasingly serious concern for growers in the Lake Ontario



Fruit Region (and beyond). The Asian spotted wing drosophila, for example (first found in California in 2008) has become a major pest throughout the US (and much of the rest of the world) in less than 10 years.

Sadly for our cherry growers, a new cherry fruit fly—this time European in origin was found in a park near Toronto in the summer of 2015, and breeding populations were confirmed in Ontario Province in 2016. Since this species is one of the most serious pests of sweet cherries in its home range, its presence so close

to the US-Canadian border was of considerable concern.

<u>LOFT involvement</u>: As a partner in the Co-operative Agricultural Pests Survey (CAPS) program administered by the USDA's Animal and Plant Health Inspection Service (APHIS), the LOFT Pest Management Program participates in seasonal monitoring and surveillance programs to help detect new and invasive pests of concern to our growers. Our 2017 program therefore included weekly monitoring

of four commercial cherry orchards in Orleans, Niagara and Monroe Counties, specifically to detect the European Cherry Fruit Fly. Additional traps in Wayne County were monitored by the NY-IPM Program.

While no target flies were detected in commercial cherry crops in our region, several were found in traps maintained by members of New York State's Dept. of Agriculture and Markets in wild host plants in parts of Niagara County (closest to the site of the 2016 Canadian infestation). These captures were sufficiently numerous to indicate an established breeding population—the first in the USA.



This triggered the development of an eradication program that will be implemented by the USDA and NY Dept. of Agriculture and Markets in 2018.

Information on the plan was first explained to growers at two public meetings in Niagara County in November, 2017. A presentation on the pest's biology and life cycle was developed by the LOFT pest management program and presented at those meetings. In order to keep all of our region's fruit growers informed of developments, further information on the pest and the planned eradication program will also be presented at the LOFT Winter Fruit Schools in Niagara and Wayne Counties in February, 2018.