

2019 Annual Report Year in Review



Cornell Cooperative Extension Lake Ontario Fruit Program

A partnership between Cornell University and the CCE Associations in these five counties: Monroe, Niagara, Orleans, Oswego & Wayne



Team News



The team is full again! In August we interviewed several candidates and offered the IPM Specialist position to Janet van Zoeren. Janet started October 16 and we are excited to have her join us! She comes to us with an excellent combination of education and experience. Janet will be housed in the Orleans CCE office.

Education

150+ Fruit Growers attended the 2019 Empire Producers Expo and Becker Forum that was held at the SRC Arena & Events Center on the campus of Onondaga Community College in Syracuse (Jan. 15-17) with over 600 attendees total. We received good feedback that supported a strong educational program that was heavy on invited speakers from out of state. Attendance at the Tree Fruit and other LOF-chaired sessions was adequate, with largest session having over 130 attendees. However, compared to several years ago, we're seeing trends of declining attendance and vendor support. Therefore discussion is underway to explore alternatives.



The LOF Winter Fruit Schools in Lockport and Newark on Feb. 4-5 were very successful. Over 285 attendees were counted over both days. Continuing our quest to bring in a strong contingent of cutting edge growers, we again brought in speakers from out of state. Evaluations were positive in support of new faces delivering new information.

International Fruit Tree Association Annual Conference. The International Fruit Tree Association (IFTA) is an organization comprised of professionals working with commercial tree fruit (mainly pome and stone fruit) industries, with members from dozens of countries worldwide. These growers, researchers, extension educators, and other industry personnel have gathered and shared knowledge for over 50 years, first as the International Dwarf Fruit Tree Association. Since nearly all commercial apples and other pome/stone fruit grown today are on dwarfing rootstocks, the name has changed, but the mission remains the same: *IFTA pursues world-class research, teaching and travel to advance knowledge, inspire innovation and build a global community of tree fruit professionals.* IFTA has two meetings a year, one a Summer Tour which features cutting-edge farms in rotating areas of the world. WNY successfully hosted the tour in 2016. The second is the annual conference, which includes both educational sessions centered on a two-day format in a hotel and 1-2 days of orchard tours. Local IFTA Board of Directors Rod Farrow and Tom DeMarree, along with LOF Specialists Mario Miranda Sazo and Craig Kahlke (and several others on the conference committee) had been organizing the conference nearly 2 years prior which ended with choosing a downtown Rochester hotel as the educational venue, and orchard tours to six farms in Orleans County, and four farms in Wayne County. There were over 350 attendees from 23 states and 7 countries in WNY from February 24-28. Evaluations and comments from attendees indicated it was an excellent meeting.



Worker Protection Standard Training & DEC Special Permit Training, April 9 (Wayne County) and April 10 (Orleans County). Over 300 workers attended either the English speaking or Spanish speaking versions at the two locations. They received the training necessary to relieve the certified pesticide applicators when they are handling federally-restricted-use pesticides for which they hold a Special Permit.



90 growers and other industry personnel attended the Thinning Meetings held in Wayne and Monroe Counties on May 24. Besides thinning recommendations given by Mario and Terence Robinson, labor, US crop, pest, and disease updates were given by Cornell Faculty and industry.

Summer Fruit Tour, July 18, featuring Niagara County. The team visited 3 different farms where presentations discussed many aspects of apple production. Approximately 130 people attended.



NextGen Fruit Growers Tour to Hudson Valley 2019—August 5-7. There were 33 young growers from LOF who attended went a 3 day tour of the Hudson Valley. They organized an excellent itinerary which included visiting orchards, packing houses, farm-to-table restaurants, U-Pick operations, the Hudson Valley Research Lab and Angry Orchard visitor's center. The study tour is focused on helping next generation growers develop the knowledge and skills needed to take their family farms into the future.

2019 CCE LOF Hispanic Summer Fruit Tour and Getting Ready for Apple Harvest by Master Class Students. On July 13th Master Class graduates hosted Hispanic participants and discussed horticultural practices and a list of things to do/get ready in preparation for apple harvest in 2019. This activity will be followed by a Post-harvest activity. This training included 4-stops in Orleans County. This year's tour focused on a new, but equally important aspect, labor readiness: i.e. communication, leadership and managerial skills in preparation of the upcoming apple harvest and beyond.



Research

Reflective Ground Cover for Coloring Apples at Harvest: Could Yield Quality and Revenue

Mark Wiltberger, Craig Kahlke, Mario Miranda Sazo, Liz Tee

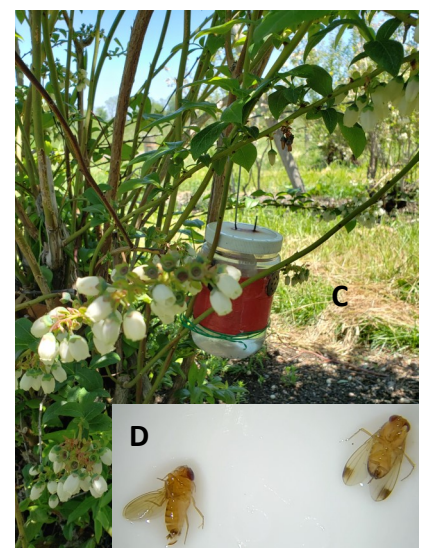
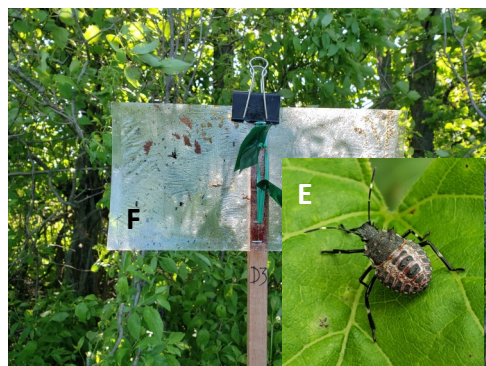
Need/Opportunity: Modern high-density orchards will still have shading issues that adversely affect the coloring of apples. Coloring of apples is the big money-maker for fresh apples. Apples making extra-fancy grade, with red coloring greater than at least 50% of each apple, will make the difference between an apple being packed for fresh fruit or being sent for juice. Juice apples get penalties on the dollar, effectively a loss for the fresh grower. Increasing extra fancy packout rates by ten or twenty percent means potentially thousands of dollars of revenue per acre for fresh apple growers. Reflective groundcovers have the potential to increase coloring by reflecting white light off of the ground and underneath and onto the shaded sides of apples.

Wild Twist™ apples coloring with the use of reflective groundcover at a Wayne County farm (~ 5 days prior to harvest.)

Coloring Gala apples with Mylar™-type reflective film



Below, clockwise from top right: A) Codling moth in a trap used to monitor the population in an orchard. B) Identification of in-ternal lepidopteran pests on processing apples. C) Trapping for invasive fruit flies in a blueberry planting in Niagara County. D) Spotted Wing Drosophila, an invasive fruit fly wreaking havoc in berry and cherries. E) A Brown Marmorated Stinkbug, an invasive pest of pome and stone fruit. F) Trapping for Brown Marmorated Stinkbugs with sticky cards in an Orleans County farm.



Business Consultation



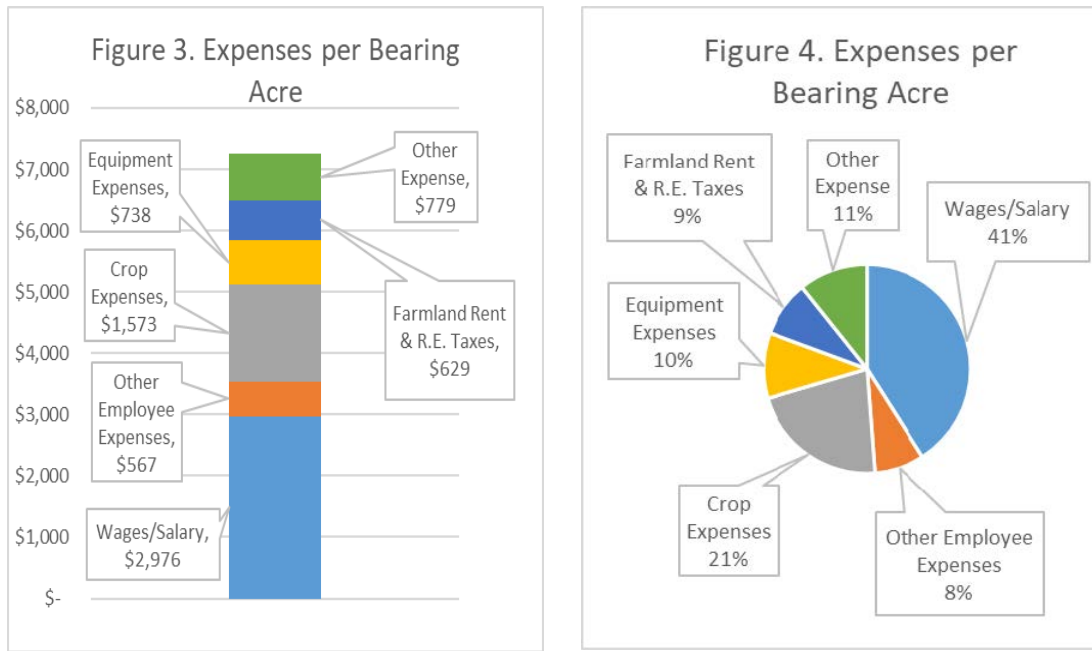
The team fielded more than nine hundred phone, email and text requests from stakeholders, many of which resulted in on-site visits to address the questions or issues facing growers. Calls ranged from pest identification, disease diagnosis, pruning techniques and harvest maturity decisions to costs of production.



Business Management

2018 Fruit Farm Business Summary (FFBS) Captures Production Costs of Fruit Industry

Mark Wiltberger



Figures 3 and 4 from the 2018 Fruit Farm Business Summary illustrate that cash operating expenses were \$7,263 per bearing acre, and labor-related expenses constituted 49% of cash operating expenses.

Need/Opportunity: The fruit industry is changing rapidly. Costs are increasing, especially for labor. High density orchards are cost-intensive. Demand and prices are changing rapidly for different crops and varieties, in some cases increasing, in other cases dramatically decreasing.

The industry as a whole benefits from concrete financial data, especially with respect to costs. Individual farms also benefit from understanding their costs. This understanding helps them to make better decisions about labor, material inputs, orchard systems, and varieties to plant.

LOF Response: I compiled business financial information for seven farms in the Lake Ontario region. The compiled data from on-farm visits served as the basis for the FFBS. The average values from the participating farms are a benchmark for the industry. Each farm receives an Individual Farm report which compares their farm's performance against the benchmark.

The FFBS provides a benchmark for the industry so that we have an idea of what the financials are for growing fruit. This is especially useful for assessing costs. The 2018 FFBS determined that for the farms who participated, cash operating expenses were \$7,263/bearing acre, and 49% of these expenses were labor-related. The Individual Farm report provides participating farms with valuable data that compares the farm's performance against the benchmark. With this information they can evaluate their practices & make strategic farm planning decisions. In addition, the farm receives a complete financial statement, which paints the whole financial picture of their farm. Lenders value this report and growers can use it to justify capital investment in their farm.

Program Administration

Background: A foundation of the CCE Regional Agriculture Teams is regular guidance from stakeholders. The success of LOF depends on regular industry interaction, in many forms such as grower interactions (farm visits, phone calls, emails, etc.), and applied research (primarily on-farm).

LOF Response: The above regular industry interactions are very important; however, past precedent has dictated that an industry advisory committee be set up, with regular meeting(s) to guide team programming. The LOF Advisory Committee is directed by operating guidelines, which are regularly reviewed and revised as needed. The Industry Advisory Committee:

- Assists the area specialists in identifying, analyzing and prioritizing educational program needs;
- Supports the area specialists in planning, implementing, and evaluating education activities to address specific needs;
- Markets the education program within the participating Cornell Cooperative Extension association counties;
- Maintains two-way communication between the respective Cornell Cooperative Extension association Program/Issue Committees and/or Boards of Directors;
- Provides input in the recruitment, selection and performance review of the area specialists;
- Aids in local recruitment efforts;
- Provides input on program needs for budget development purposes. With the Administrative Management Group representative, they secure funding for the respective association shares of program costs. They help develop alternative funding sources and strategies, as needed.

The voting portion of the committee consists of 2-4 growers from each partner county, based on size of the tree fruit & small fruit industry in each county. There are also several industry members (chemical, nursery, etc.) that are nominated and seconded by the other grower/industry members. The at-large grower members can be nominated and seconded by any other grower. For the county representatives, the committee can suggest one or more growers, but the ED of the CCE Association must invite the member. Terms are 3 yrs, automatically renewed, to two terms maximum. After 6 yrs on the committee, they cannot rejoin for another 3 yrs. There are Cornell Faculty, the CCE-LOF Specialists, CCE ED's, CCE Admin, and others that are committee members without term limits but whom cannot vote.

Predicted Outcomes: We've been told by specialists on other teams, along with Cornell & CCE administrative personnel, that our industry advisory committee functions most like it was intended. One of the main reasons for this is perhaps the fairly homogenous nature of our industry- medium to larger commercial tree fruit growers.



A sample slide from our specialists program review presentations at the LOF Advisory Committee meetings.

Professional Development

2019 International Fruit Tree Association Annual Conference

All 4 specialists attended the International Fruit Tree Association's Annual Conference in Rochester, NY from February 24-28. In addition to helping secure a host hotel, Craig & Mario worked with local board members & Educational Session Chair Karen Lewis (Washington State University) to chair 2 educational sessions and give two talks. All 4 specialists were guides on the field tours in Orleans & Wayne Counties. The networking & sharing of ideas with premier fruit growers from around the world is invaluable to keeping LOF on the cutting edge of research & extension to keep our industry sustainable.



Mario Miranda Sazo was recognized as Outstanding Extension Educator by IFTA during the annual conference. Terrence Robinson of Cornell University presented the award

2019 Great Lakes Fruit Workers (GLFW) Annual Meeting—Simcoe, Ontario, Canada, November 5-7



Craig, Mark, and Janet attended this annual meeting that features tree fruit and small fruit extension educators and researchers from much of the northeastern and Midwestern US. The meeting rotates between New York, Michigan, and Ontario. It has proven to be one of the best professional development opportunities for specialists in our subject area. The meetings always include presentations, field tours, a banquet dinner, and plenty of opportunity for networking and brainstorming ideas for future collaboration.

Attendees of the annual GLFW meeting observe an over-the-row blueberry harvester at EZ Grow Farms in Langton, Ontario, Canada.

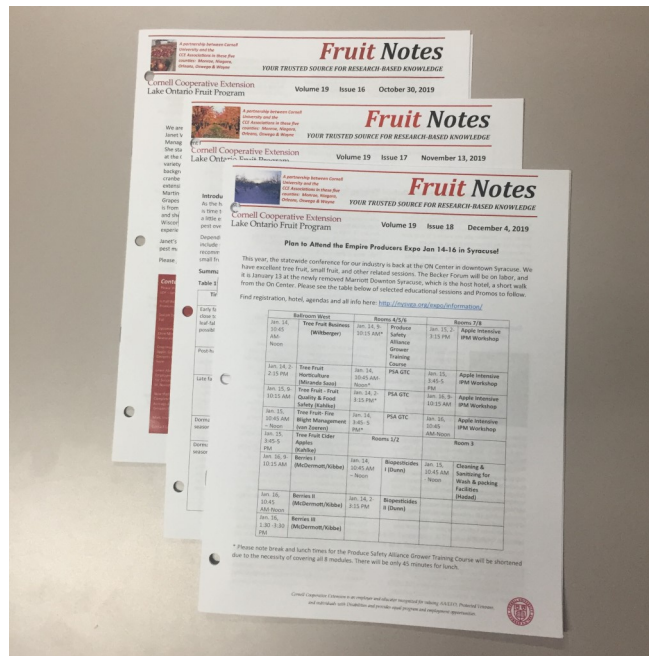
Team Publications

The team publishes timely information throughout the growing season for growers and industry members that enroll in the program via the county associations.

“Fruit Notes” is a comprehensive newsletter covering time-relevant information on various fruit growing topics. (~16 issues per year, email or mail)

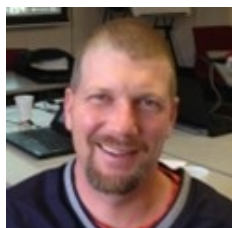
“Fruit Facts” is a weekly email report with horticultural reminders covering the day -to-day activities that are more time sensitive and important at that moment in the growing season. This report is available by fax or email for fruit and berry production.

The **“Harvest Maturity Report”** covers fruit ripening indicators for over 20 apple and varieties. This report helps growers make good harvest decisions to ensure optimal fruit quality.





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