



Cornell University Cooperative Extension

**Lake Ontario Fruit Program
Quarterly Report
April-June 2017**

Overview: The 2017 field season started with many questions regarding tree health following the drought in 2016. There was poor to fair return bloom for some un-irrigated apple orchards; however, by most accounts there is an adequate crop of very good quality thus far. Most of the region had record rainfall in May, and strong thunderstorms on several occasions in June brought hailstorms to significant apple acreage. Time will tell how much of the overall volume is affected. June-bearing strawberries rebounded well this year following the poor 2016. Spotted wing drosophila began emergence earlier than in past years, putting growers of blueberries, raspberries, and day-neutral strawberries on alert.

Team News: The search to fill the Production Economics/Labor Management position on the team has produced three strong candidates which will be brought in for formal interviews August.

Education: Special permit trainings, thinning meetings, and performing tasks/collecting data on applied research projects were the main focus for the team. In addition, preparation for the annual summer fruit tour was essential.



Mario demonstrating hand-thinning of Gala trees to Cornell Horticulture students.

Education:



Educational Meetings:	Attend- ance	Notes:
Special Permit Trainings	345	2 workshops in Wayne County, one in Orleans County
Petal Fall Thinning Meetings	115	1 meeting each in Wayne and Orleans Counties
Controlling Listeria in Apple Packinghouses	40	See quarterly highlight in Fruit Quality Management
PSA Grower Training Courses	55	1 course each in Wayne and Genesee Counties
Pruning Workshops	20	1 each in Oswego county and Champlain Valley

Publications:	Editions:	Articles:
Fruit Notes	7	12
Fruit Facts	26	NA



Sampling suspected virus-infected trees



Specialist	Site Visit	Phone/Email
Grasswitz	19	5
Kahlke	5	4
Miranda-Sazo	10	35



Field Activity	1 ^o LOF Person	Field Activity	1 ^o LOF Person
Mechanical Blossom Thinning	Miranda Sazo	Spotted wing drosophila monitoring	Grasswitz
Precision Chemical Thinning	Miranda Sazo	Monitoring for 3 potentially invasive exotic pests of apples and stone fruit	Grasswitz
Precision Chemical Thinning (site TBD)	Miranda Sazo	Monitoring for 3 potentially invasive exotic pests of berry fruit	Grasswitz
Comparing seasonal nutrient requirements between Honeycrisp and Gala trees on M.9 rootstock	Miranda Sazo	Apple pest monitoring – on-going monitoring programs for codling moth, oriental fruit moth, oblique-banded leafroller and black stem borer	Grasswitz
ARDP Virus Work with Fuchs	Miranda Sazo	Initiated an on-farm pilot project on leopard moth biology and phenology	Grasswitz
ARDP – String thinning work with Kerik Cox	Miranda Sazo	Collaborator in multi-state research project (SCRI) on brown marmorated stink bug biology & management	Grasswitz
Tracking phenology on hard cider varieties	Kahlke	ARDP- Incidence & possible causes of Sudden Apple Decline (SAD)	Grasswitz
ARDP– Crop Load and Harvest Management for Hard Cider Orchards	Kahlke	Measuring and Extending Benefits of More Accurate HC Harvest Predictions	Kahlke
ARDP- Viruses in Apples	Kahlke		



Full Bloom in a young tall spindle orchard



'Binet Rouge', (hard cider variety) at full bloom

Quarterly Highlight for Fruit Quality Management

Controlling Listeria in Apple Packinghouses workshop, June 8.

Craig organized and facilitated a first of its kind workshop in Western NY that invited industry experts from Cornell, Virginia Tech, and private businesses to share practical background and hands-on best management practices for controlling the deadly bacteria that causes foodborne illness. A morning classroom session was held at CCE-Wayne in Newark. Presentations included: *Listeria 101 – Basic Microbiology & Impacts to the Packing Environment* (Genevieve Sullivan, Graduate Student, Cornell University), *Understanding and Identifying Listeria monocytogenes Risk Factors in Packinghouses* (Dr. Laura Strawn, Assistant Professor, Virginia Tech – Eastern Shore AREC), *Basic Principles of Sanitation - Cleaners & Sanitizers for the Packinghouse* (Peter Salvia, Alpha Chemical Co), *Research and Discovery-based Environmental Swabathons: A Case Study* (Dr. Strawn), and *Overview of the Food Safety Modernization Act: Applicable Packinghouse Requirements & Cross-over in the Preventive Controls Rule for Human Food* (Ms. Gretchen Wall, The Produce Safety Alliance). A hands-on workshop was hosted by Empire Fruit Growers (EFG) Co-Op (Rich Leous, Manager). EFG opened their doors to representatives from every apple packinghouse in Western NY for the benefit of the industry. Three rotating stations included *Cleaning of Roller Brushes & Areas Adjacent to Food Contact Surfaces* (Mr. Salvia), *Using ATP Bioluminescence Testing to Verify Cleaning Effectiveness* (Ms. Nicole Martin, Research Support Specialist, Cornell & Ms. Sullivan), and *Listeria Monitoring in the Packinghouse* (Dr. Strawn). Evaluations indicated that the workshop was a success, and requests are already coming in to have more than one next year, and allow each packinghouse to invite more employees. An article about the workshop is to be published in the Core Report, the official Newspaper of the New York Apple Association.



Dr. Laura Strawn demonstrating how to swab a floor drain at Empire Fruit Growers Co-Op.