



## **Cornell Cooperative Extension Lake Ontario Fruit Program Quarterly Report October - December 2020**

*A partnership between  
Cornell University and the  
CCE Associations in these five  
counties:*

*Monroe, Niagara, Orleans,  
Oswego & Wayne*

**Overview:** While there was some sense of normalcy as harvest peaked in October and wound down by early November, the reality of the pandemic continued into fall and early winter as all meetings were still being held virtually. In addition, plans for winter and early spring meetings continued with virtual formats. As great fall-like weather from September continued into the first week of October, the last 2-3 weeks were dominated by cloudy and wet weather conditions, and color suffered on late-season varieties. For much of the summer, most of the region was mired in a drought. Some timely thunderstorms brought much needed rain to some parts of the region, but many areas remained very dry until October, well into harvest. Therefore, fruit size was small overall. Craig and Liz' harvest maturity testing and subsequent maturity reports contained critical guidance in a year that was difficult to predict harvest dates. As of this writing, movement and prices are good, and many marketers expect to sell most of their crop earlier than normal, which is advisable considering the variable storage quality in a lot of fruit that was harvested late. This was mainly due to shortages/late arrivals of H2-A labor (COVID-19 delays). Mario was very busy managing the various research projects, including Honeycrisp bitter pit mitigation that included his PHD research. Mark continued to be busy providing COVID-19 guidance to businesses and was also busy performing final data analysis and compilation of the 2019 Fruit Farm Business Summary. In addition, Janet wrapped up field activities at harvest and started analyzing data on a funded project. The usual transition into "meeting season" was of course different. We held our annual advisory meeting virtually on November 9. Attendance was about the same as our live advisory meetings from the past, but with less growers staying on for the whole day. One of the key points that came out of the meeting was the need to have shorter, more focused meetings- perhaps with subcommittees working with individual specialists on 1-2 major topic areas.

### **Education:**

With virtual-only meetings in line for our winter programming, the team worked with our tree fruit counterparts with CCE-ENYCHP, specialists Dan Donahue and Mike Basedow to organize a statewide virtual tree fruit



**NY2 (RubyFrost™) apples just prior to harvest in a Wayne County orchard.**

conference for February 2-4, 2021. This event is in place of our usual (statewide) Empire Producer's Expo and (regional) Winter Fruit Schools, and CCE-ENY's (regional) winter conference. LOF and ENYCHP held multiple Zoom meetings from October – December to plan what we think is an excellent conference full of dynamic speakers that cover 3 full days and

12 sessions. Full conference information is here:

<http://blogs.cornell.edu/nystreefruitconference/>



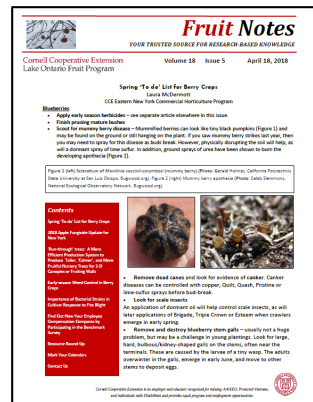
**MAIA1 (Evercrisp™) apples with rain splitting just prior to harvest in a Niagara County orchard.**



**A PowerPoint slide presented by Craig during a 1-day GAPs workshop sponsored by CCE-Niagara on 12-14-20.**

## By the Numbers:

Team Publications:	Editions:	Articles:
Fruit Notes	3	22
Email Blasts	8	27
Harvest Maturity Reports	3	NA
CrunchTime Apple Growers Harvest Maturity Bulletin	3	NA
Evercrisp™ Harvest Maturity Bulletins	3	NA
Wild Twist™ Harvest Maturity Bulletins	4	NA



Selected Publications by LOF Team	Periodical	Author
<i>Brown Marmorated Stink Bug – Trapping and Damage</i>	<i>Fruit Notes, Issue 16</i>	van Zoeren
<i>Fall Sanitation Season</i>	<i>Fruit Notes, Issue 17</i>	van Zoeren, updated from Grasswitz
<i>European Cherry Fruit Fly (ECFF) Special Update</i>	<i>Fruit Notes, Issue 17</i>	Kelly & van Zoeren
<i>A Decade of SWD – Webinar Recap</i>	<i>Fruit Notes, Issue 18</i>	van Zoeren
<i>CFAP 2 Deadline is December 11: Growers Should Look at Applying for this COVID-19 Financial Relief</i>	<i>Fruit Notes, Issue 17</i>	Wiltberger



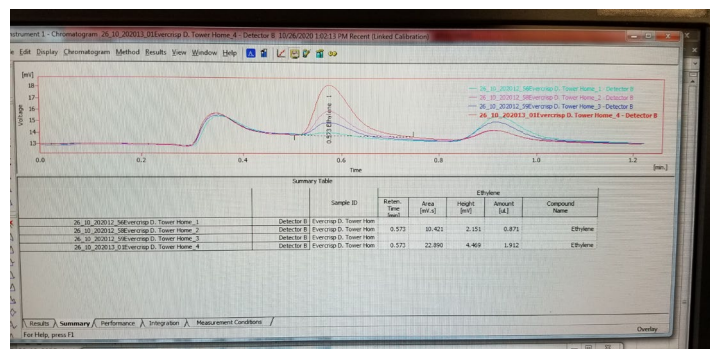
LOF technician Liz Tee injects an air sample from an apple core into a gas chromatograph to measure internal ethylene concentration in the fruit, a measure of maturity. Location: Orleans County Cooperative Extension's maturity laboratory.



<b>Presentations by LOF Team</b>	<b>Periodical/Meeting:</b>	<b>Presenter:</b>
<i>Fruit Quality Management Programming</i>	Annual LOF Advisory Meeting, November 9, Zoom	Kahlke
<i>Cultural Practices Programming</i>	Annual LOF Advisory Meeting, November 9, Zoom	Miranda Sazo
<i>Integrated Pest Management Programming</i>	Annual LOF Advisory Meeting, November 9, Zoom	van Zoeren
<i>Business Management Programming</i>	Annual LOF Advisory Meeting, November 9, Zoom	Wiltberger
<i>Part 2: Intro to Audits, Recordkeeping; Part 4: Production Water; Part 6: Post-Harvest Water, Cleaning &amp; Sanitation</i>	Virtual Good Agricultural Practices Training (GAPs), December 14, Zoom	Kahlke
<i>Adapt and Change Faster: How the Most Innovative Fruit Companies and Their Key Hispanic Employees can Capitalize on Today's Rapidly Evolving and Competitive Economy</i>	Annual Meeting & Northwest Hort Expo. December 8 <sup>th</sup> , 2020. (virtual)	Miranda Sazo
<i>A Constant Evolution for Tree Shapes/Forms/Production Techniques and Modern Orchard Training Systems</i>	Annual Meeting. Northern Agriculture R&D MIGAL, Galilee Research Institute, Israeli Ministry of Agriculture and Rural Development, Dec. 10 <sup>th</sup> , 2020. (virtual)	Miranda Sazo

### **Business Consultation:**

<b>Specialist</b>	<b>Site Visit</b>	<b>Phone/Texts/Emails</b>
Kahlke	6	325+
Miranda Sazo	0	70+
Van Zoeren	2	19
Wiltberger	0	42



Rain cracking on MAIA1 (Evercrisp™) apples following heavy rains prior to harvest.

Computer readout of internal ethylene concentration of apple samples for maturity testing.



“Granny Smith” and “Pink Lady Barnsby” apple samples await maturity testing.

**Research:**

<b>Activity/Proposal/Grant</b>	<b>Person(s)</b>	<b>Funded (Y/N) or Unfunded/ Preliminary Research (UPR)</b>
On-farm Rootstock/Training Systems	Miranda Sazo, L. Gonzalez, Robinson	Yes-ARDP
Potassium Studies with Mature Honeycrisp	Miranda Sazo & Cheng	Yes-ARDP
Refinement and Implementation of Newly Developed Technologies to Significantly Reduce Producer Losses to Bitter Pit in the Honeycrisp C.V. Apple	Donahue, Kahlke, Basedow, Tee, et. al	Yes-NYFVI
On-Farm Readiness Reviews 2020	Kahlke, Hadad	Yes- NYS Dept. Ag & Mkts.
Precision Orchard Management	Robinson, Miranda Sazo, Kahlke, Tee, et. al	Yes-ARDP
Labor Readiness: Pathways for Farmworkers to Start Up and Advanced Beginners to Scale Up New Farm Business	Rangarajan, Miranda Sazo	Yes- USDA-NIFA
Reducing Risk in Fruit and Veg Production Through Improved on-Boarding of New Farm Employees OSP 91913	Higgins, Wiltberger, Stup	Yes-USDA RME
New York Agricultural Labor in Transition	Stup, Wiltberger	Yes-USDA RME
Weed Management	van Zoeren, Basedow	Yes-ARDP
Ambrosia beetle (black stem borer)	Agnello, van Zoeren	Yes-ARDP
Brown marmorated stink bug monitoring	Agnello, van Zoeren	Yes-ARDP

**Selected Professional Development and Training:**

<b>Activity</b>	<b>Team Member(s)</b>	<b>Comments:</b>
HR 300 - Responsibility @ Cornell, Nov. 5	Kahlke	Virtual
Attended SCRI R2F annual conference on Dec. 16	Miranda Sazo	Virtual
Attended NC-140 zoom conference on Nov. 4-5	Miranda Sazo	Virtual
Attended the (virtual) NE, NY and Canada Fruit Pest Management workshop on Oct 19.	van Zoeren	Virtual
Attended training sessions and prepared lectures to co-teach a Tree Fruit Production course in the "Cornell Small Farms" platform.	van Zoeren	Virtual

**Selected Professional Development and Training (continued)**

Activity	Team Member(s)	Comments:
"Reconnecting with Purpose" retreat and reflection, Oct 21-23 and Nov 20.	van Zoeren	Virtual
"New York Labor Roadshow IV, November 18 – November 24," 5-day webinar series.	Wiltberger	Virtual
"Updates for Web seminar: Tree Fruit Market Outlook with Des O'Rourke," Farm Credit Northwest market outlook webinar, November 13, 2021.	Wiltberger	Virtual
"Farm Service Agency in New York Coronavirus Food Assistance Program 2" – webinar update on CFAP 2 program from USDA Farm Service Agency	Wiltberger	Virtual



Evaluating apples rejected for processing. Liz Tee and Janet van Zoeren are tasked with identifying each internal Lepidoptera species.



Late-season apples await harvest in a Niagara County orchard.

## ***Fruit Quality Management – Craig J. Kahlke***

### **Educational Programs/Presentations:**

- 2021 Cornell Tree Fruit Conference (Virtual, February 2-4) – see LOF Team Highlight as well
  - In a partnership with CCE-ENYCHP, agreed to co-host a statewide educational conference in place of LOF's regional winter fruit schools & tree fruit educational tracks at the Empire Producer's Expo
  - Had multiple Zoom meetings with meeting organizers (LOF specialists, technician Liz Tee, ENY specialists Dan Donahue & Mike Basedow, technicians Andy Galiberti & Sarah Elone
  - Agreed to chair 3 sessions – duties included topic ideas, speaker invites, and submission of talk titles and time slots
  - Submitted CCA credits for all Fruit Sessions.
- 2021 Empire Producer's Expo (Virtual, January 12-14)
  - Was invited (and agreed) to promote our 2021 Cornell Tree Fruit Conference at the Expo as part of an evening program hosted by the New York Apple Association, promoting their activities over the past year
- Conducted 5 On-Farm Readiness Reviews October-December. The On-Farm Readiness Reviews are voluntary and requested by farms to check their compliance with the Produce Safety Rule of the Food Safety Modernization Act.
  - Oct 2 on a farm in Niagara County
  - Oct 22 on a farm in Orleans County
  - Oct 28 on a farm in Orleans County
  - Nov 10 on a farm in Orleans County
  - Dec 2 on a farm in Niagara County
- LOF Advisory Committee Presentation: "Program Update: Fruit Quality Management" Outlined the programs planned for next year and solicited stakeholders for feedback in ideas and ranking priorities. Nov 9, Zoom.

### **Publications:**

#### **Fruit Notes**

- Articles Written:
  - *Pre-register Now for Our Annual LOF Advisory Committee Meeting (Zoom), Volume 20, Issue 17*
  - *SAVE THE DATES! - CCE's NY Virtual Tree Fruit Conference sponsored by the CCE Eastern NY Commercial Horticulture Program and the CCE Lake Ontario Fruit Program, Volume 20, Issue 17*
  - *Season's Greetings!, Volume 20, Issue 18*
  - *Plan to Attend Our 2021 Cornell Tree Fruit Conference in February!, Volume 20, Issue 18*
- Edited 3 newsletters in the quarter.
- Sorted through numerous announcements about workshops/conferences/meetings/surveys and along with the pertinent on-line registration links, put them in the newsletter.

#### **Email Blasts**

- Sorted through numerous announcements about workshops/conferences/meetings/surveys and along with the pertinent on-line registration links, put them in the email blasts.
- Worked with Mark Wiltberger in deciding who would send out email blasts
  - Craig sent out 5 email blasts in the quarter, and Mark sent out 3- (see Mark's section of Qtly Report)



- 11-5 & 11-9— LOF Announcement - *Pre-register Now for Our Annual LOF Advisory Committee Meeting (Zoom) – Monday, November 9, 2020, 9:30 AM – 3:30 PM*
- 11-11 – LOF Announcement- *THANKS to the ATTENDEES of OUR ADVISORY MEETING on Monday! – All are welcome to participate further by filling out evaluation forms and giving us valuable feedback. Food Industry COVID-19 Virtual Office Hours: Observations from the Field, Webinar Nov 12, 12-1 PM. Farm Service Agency in New York to Host Meetings on Coronavirus Food Assistance Program 2. The first meeting will be Tuesday, November 17<sup>th</sup> at noon, and the second, which will focus on the specialty crops portion of CFAP 2, will be Wednesday, November 18<sup>th</sup> at noon. Labor Roadshow IV Agenda - two-hour webinars will be held online through Zoom at noon on November 18, 19, 20, 23, and 24.*
- 11-13 – LOF Announcement – *Qualtrics Survey- We Need your Valuable Feedback for our Specialists!*
- 12-1 – LOF Announcement – *A Decade of SWD: Lessons for Management- a 1 hr webinar December 8, Noon EST. Please take the survey on your Current weed management practices! Strawberry Grower Survey (as seen in our last newsletter). Survey on Degradable Mulching Films for Sustainable Agriculture. Cornell Small Farms Program- courses open for January!*

## Other Team Duties:

- Team Leader Administrative Duties
  - Approved invoices and vouchers as needed.
  - Attended WNY AMG Meeting Oct 15 (Zoom).
  - Reviewed budget and monthly financials.
  - Approved timesheets/vacation/sick leave hours for team members as needed.
  - Disseminated pertinent info to rest of team as needed from:
    - Monthly Team Leader Zoom calls
    - Group and other email lists
- Organized monthly and weekly team (Zoom) meetings. Made sure there was enough labor for all specialists to perform needed field tasks as the season drew to an end.
- Solicited ideas (via newsletters/email blasts/emails/Advisory Mtg) for tree fruit conference.
- Submitted July-Sept. 2020 quarterly report
- Submitted bio/pic to C. Trowbridge for a new CALS webpage
- Submitted 2020 success story and reviewed data for annual federal reporting

## Harvest Maturity Program:

- Collected fruit from Niagara & Orleans Counties on Mondays. Secured additional samples from crop consultants. Ran maturity in Orleans CCE lab with Liz. Secured samples from crop consultants and growers Tuesdays in Wayne County. Ran maturity Tuesdays at KM Davies in Williamson. Emailed maturity data to crop consultants, researchers, other extension educators, growers, and storage operators. Discussed data on Wednesday morning conference calls. By Wednesday afternoon, sent out Harvest Maturity Reports to over 77 paid subscribers, with an additional 140 complementary subscribers. Through the quarter, Craig sent three Harvest Maturity Reports. In addition, separate harvest maturity bulletins were generated for the two varieties owned by Crunch Time Apple Growers, SnapDragon™ and RubyFrost™. Three bulletins were sent to through the quarter. Performed additional harvest

maturity testing for two late-season varieties Evercrisp™ and Wild Twist™. Sent out maturity data and recommendations via email to interested parties in 3 sequential weeks in Oct/Nov.

- Attended PWT zoom meeting on Dec. 11

### Professional Development:

- Attended (via Zoom) the HR 300 - Responsibility @ Cornell course, Nov 5.

### Stakeholder Contacts:

- Conducted 6 farm visits related to harvest maturity recommendations in Oct/Nov in Niagara, Orleans, and Wayne Counties
- Assisted stakeholders via texts, phone, and email (~325).





## ***Cultural Practices – Mario Miranda Sazo***

### **Educational Programs/Presentations:**

- 2021 Cornell Tree Fruit Conference (Virtual, February 2-4) – See LOF Team Highlight as well
  - In a partnership with CCE-ENYCHP, agreed to co-host a statewide educational conference in place of LOF's regional winter fruit schools & tree fruit educational tracks at the Empire Producer's Expo
  - Had multiple Zoom meetings with meeting organizers (LOF specialists, technician Liz Tee, ENY specialists Dan Donahue & Mike Basedow, technicians Andy Galiberti & Sarah Elone
  - Agreed to chair 3 sessions – duties included topic ideas, speaker invites, and submission of talk titles and time slots

### **Publications:**

**CCE LOF Fruit Facts: Fall recommendations, special edition sent on Oct. 19**

#### ***Presentation(s) given – Invited Presentation:***

- *'Adapt and Change Faster: How the Most Innovative Fruit Companies and Their Key Hispanic Employees can Capitalize on Today's Rapidly Evolving and Competitive Economy'*. Annual meeting & Northwest Hort Expo. December 8<sup>th</sup>, 2020.
- *'A Constant Evolution for Tree Shapes/Forms/Production Techniques and Modern Orchard Training Systems'*. Annual meeting. Northern Agriculture R&D MIGAL, Galilee Research Institute, Israeli Ministry of Agriculture and Rural Development, Dec. 10<sup>th</sup>, 2020.

### **Applied Research Projects/Collaborations:**

#### **On-farm Rootstock/Training Systems (ARDP/Robinson)**

- Red Delicious trial at Kast evaluated by MMS on October 13
- Idared rootstock trial at Peters evaluated by Luis Gonzalez on October 14

#### **Honeycrisp project with Lake Ontario Fruit Inc., (Cheng/Orleans fruit growers)**

- Colorimetric analysis for N detection conducted on Nov. 16

#### **Potassium studies with mature Honeycrisp (ARDP- Cheng and Miranda Sazo)**

- July peel samples squeezed for sap analysis on Nov. 2

**Use of Apogee applied pre-harvest to suppress bitter pit on mature Honeycrisp (unfunded- Cheng and Miranda Sazo)**

- Fruit samples evaluated for bitter pit incidence on Nov. 25

#### **Cornell AgriTech experimental orchard (ARDP/Fuchs and Miranda Sazo)**

- There were not field activities this Q4 (all trees were de-fruited in 2020)
- Analyzed data and tested interaction of treatments on tree growth

#### **Light interception/reflection studies with and without reflective fabrics (unfunded, Luis Gonzalez's research work, a new PostDoc in Robinson's lab)**

- It is a continued effort after completed a 2-year netting/fabric project at Cherry Lawn Farms in 2019
- In 2017, the Robinson's lab designed/built a light measurement machine to measure the % of light intercepted by several training systems in NY (tall and super spindle) and in WA (tall spindle, V-systems, multiple stems)
- In 2020, the machine was redesigned with a new set of bars/sensors to measure the light reflected by the trees when using fabrics. There were 4 light studies conducted in 3 Wayne County farms in 2020
  - Light measurements with Extenday were conducted for Honeycrisp at Cherry Lawn Farms on Oct.8 (sunny day) and Oct. 20 (cloudy day)
  - Light measurements with Extenday were conducted for Honeycrisp and Minnieska at Donald DeMaree Fruit Farm on Sept. 28 (sunny am, semi-cloudy in the pm)
  - Light measurements with Mylar and Extenday were conducted for Honeycrisp at Wafers on Oct. 2 (sunny am, cloudy pm)
  - Light measurements with Mylar were conducted at Wafers on Oct. 8 (sunny day)
  - At the Cherry Lawn site, a 30 fruit sample was collected from each research plot at harvest. Fruit color evaluations were conducted in Geneva in late Dec.

#### **"Labor readiness: Pathways for farmworkers to start up and advanced beginners to scale up new farm business" (USDA-NIFA, Rangarajan, Miranda Sazo)**

- Introduced the 2-year Master class program to a group of Cornell undergraduates (class taught by Professor McKenzie and student group activity coordinated/led by N. Waters)
- Introduced/moderated a class session with invited grower Jeff Smith (Orleans County) and Master graduate employee José Pérez
- Introduced/developed the idea of a 'thank you' video to acknowledge/appreciate the contributions of WNY Spanish orchard workers - YouTube video produced/edited by Cornell students.
- The YouTube video is titled "*Orchard employees appreciation video*" and was released on Dec. 16. It is available online at: <https://www.youtube.com/watch?v=U8kX1M07to8&feature=youtu.be>
- We had 2 zooms to discuss 2019 CCE Language Survey results and identified Spanish language assets in Cornell and CCE (at the faculty/regional/county association levels). We plan to continue this effort in 2021
- There were 2 zoom meetings with Anu, Nicole, and C. Wayne to brainstorm ideas for a new BFRDP submission in 2021
- This quarter we initiated a Spanish collaboration with Penn State Extension (Tara Baugher, Maria Gorgo-Gourovitch), for a Master class workshop to be conducted in Feb. 2021. More details available online at: <https://extension.psu.edu/2021-mafvc-spanish-session-to-feature-mario-sazo-and-sergio-and-silvia-rosario>

### On-farm nursery project (ARDP/Robinson and Miranda Sazo)

- Soil temperature sensors and a time-lapse camera were retrieved at the end of October
- Soil temp data downloaded/analyzed by Rich Piccioni
- Visited trial with TLR and L. Gonzalez on Oct. 5
- Took tree height and trunk caliper data at the Furber trial on Nov. 6
- All 2019 and 2020 was summarized, analyzed, and reported to TLR for ARDP report

We plan to give a nursery talk at the 2021 CCE Fruit Conference

### Data Summaries/Reports:

- Submitted one annual ARDP report for the project titled “Determining the Nutrient Requirements of ‘Honeycrisp’ trees on Four Rootstocks”
- Summarized and submitted field data for Fuchs’s ARDP report (virus)
- Summarized and submitted field data for Robinson’s ARDP report (nursery)
- Summarized and submitted field data for Cheng’s ARDP report (potassium studies)
- Compiled/coordinated research work for Cheng’s ARDP report (apogee/manganese study)

### Grant Submissions, Re-Submissions, Letters of Support, Proposal Meetings

- Attended 4 zoom meetings (Nov. 13, 20, Dec. 4 and 18) for the planning of a SCRI CAP project titled ‘*Enhancing resilience of U.S. pome fruit production to extreme temperatures in a changing climate*’ (PI: Kalcsits)
- Wrote and requested grower support letters, submitted an updated COI
- Drafted a nationwide extension initiative in collaboration with WSU (Jenny Bolivar) and MSU (to be discussed with L. Kalcsits and Anna Wallis in early 2021)

### PhD/Coursework:

- Reviewed 17 job applications, then interviewed 3 final candidates (Dec. 21-22) for a research support specialist position with M. Pritts and L. Cheng
  - LC offered position to Kaspar Kuehn (to support additional field/lab work in 2021)
- Identified, interviewed, then lobbied the hiring of Christine Cioletti (during Oct.-Nov.), for a full-time tech/lab position in SIPS
  - Christine was hired with salary funds provided by L. Cheng and T. Robinson (to support additional field/lab work in 2021)
- Took and completed the PLHRT 9900 class (Doctoral Dissertation Research)
- Moved sand culture potted trees to enclosure with several helpers in Nov.
- Submitted several hundred samples to CALS analytical lab and to a Penn State analytical lab
- Summarized/analyzed 4-year sand culture data (presented at the SCRI AppleRoot2Fruit meeting on Dec.6 and submitted to ARDP on Dec. 9)
- Submitted Special Committee Selection and Change form, communicated with all committee members, and scheduled A-exam for March 24, 2021 (exam for admission to Doctoral candidacy)
- Fruit quality and color of Honeycrisp fruit will be evaluated at Cornell AgriTech in Feb. 2021



## Other Team (individual/collaborations)/ Duties:

- Attended LOF team meetings and conference calls as needed
- Attended zoom meetings as needed for the planning of 2021 Cornell Fruit Conference
- Evaluated the mechanical harvest of cider trees in Wayne on Oct. 7
- Attended CCE LOF advisory on Nov. 9
- Attended ENY advisory on Nov.10
- Asked Terence for additional funds to support LOF and the purchase of Liz's computer on Oct. 27
- Planned, conducted part 2 (Dec. 15) of the IFTA interview/video shooting for a HC NY video (main effort led by L. Tee)
- Met with CK and G. Lang via zoom on Nov. 12
- Met with M. Basedow via zooms for the planning of a trellis grower panel
- Encouraged CK and rest of our team to collaborate closely with D. Donahue and M. Basedow for the planning of a CCE statewide fruit conference in 2021
- Secured invited speakers Karen Lewis and Lee Kalcsits from WSU (3 educational sessions)
- Engaged a Cornell faculty/extension team and improved/better aligned future research/extension efforts for Honeycrisp (zoom meeting conducted on Nov. 25)
- Reported fleet mileage as needed during this quarter, changed oil, etc.
- Authored and submitted one article to LOF newsletter editor
- Submitted July-Sept. 2020 quarterly report
- Submitted bio/pic to C. Trowbridge for a new CALS webpage
- Submitted 2020 success story and reviewed data for annual federal reporting
- Liaised with TLR, LC, and LK for the planning of a new SCRI grant proposal (extreme temps)
- Communicated and strategically worked with Cornell Small Farm Program

## Committee & Board Meetings:

- Attended PWT zoom meeting on Dec. 11

## Professional Development:

- Attended SCRI R2F annual conference on Dec. 16
- Attended NC-140 zoom conference on Nov. 4-5

## Stakeholder Contacts:

- Minimized farm visits and exposure with growers and orchard workers this Q4 (due to Covid-19)
- Most of the field activities were carried out to conduct field research in WNY orchards and Ithaca campus.
- Assisted 10 growers via 15-20 emails, 20 phone communications, 30-40 texts (pics, videos, voice messages, etc.).
- Introduced J. v. Zoeren to N. Morgan grower (Wayne) on Nov. 19 (half-day visit).

## Integrated Pest Management – Janet van Zoeren

### Educational Programs/Presentations:

- Presented “Integrated Pest Management Programming” at the LOF Advisory Committee Meeting (Zoom) November 9.

### Publications:

#### Fruit Notes Articles Written:

- van Zoeren, J. *Brown Marmorated Stink Bug – trapping and damage*. Fruit Notes, Volume 20, Issue 16. Pp 1-2.
- van Zoeren, J. *Fall Sanitation Season*. Fruit Notes, Volume 20, Issue 17. Pp 3-5.
- van Zoeren, J. *A Decade of SWD – Webinar Recap*. Fruit Notes, Volume 20, Issue 18. Pp 3-4.

#### Fruit Facts Articles Written:

- Special issues: fall 2-part series

#### Spotted Wing Drosophila Blog:

- van Zoeren, J. and Carroll, J. 2020. *A decade of SWD – webinar recap*. Spotted Wing Drosophila Blog, Cornell University, 17 December 2020. Web. Accessed 17 December 2020.  
<https://blogs.cornell.edu/swd1/2020/12/17/a-decade-of-swd-webinar-recap/>

### Applied Research Projects:

#### Weed Management (ARDP; PI-Mike Basedow):

- Late October – fall herbicide application, canker survey, trunk diameters, and weed assessments
- Summarize results

#### Ambrosia beetle (black stem borer) management (ARDP; PI-Agnello):

- Coordination with Cornell and USDA scientists and ISCA Tech developers, to develop an ARDP and SCRI grant process to continue research in coming years

#### Brown marmorated stink bug monitoring (ARDP; PI-Agnello):

- Weekly trap monitoring at three sites, located in Niagara, Monroe and Wayne Counties (through October)

#### Virus (ARDP; PI-Fuchs):

Final height and trunk circumference measurements (Nov)

### Grant Submissions, Re-Submissions, Letters of Support, Proposal Meetings:

- Working with Maria van Dyke and Bryan Danforth, to support a NE SARE grant application to develop wild pollinator educational materials
- Working with Lynn Sosnoskie, to provide grower connections and support for a NE SARE grant application on using vision-guided equipment to protect trees from herbicide damage (not funded)
- Working with Lynn Sosnoskie, to support an OREI grant to demonstrate use of an electrical weeder in organic tree fruit and berry systems
- Participant and providing grower connections/letter of support for a USDA-SCRI grant to look at the biology and management of Ambrosia beetles, including black stem borer

### **Other Team Duties:**

- Worked together with team to coordinate and facilitate the winter Tree Fruit Conference (organized speakers and facilitated the Insect Management session).
- Participated in Advisory Committee meeting (Nov 9, 2020)

### **Committee & Board Meetings:**

- Served on planning committee for the 2021 Ag Extension Retreat

### **Other Area-wide Education and Advocating:**

- Communicated closely with Juliet Carroll, the USDA-APHIS, and the NY DAM groups, to keep cherry growers up to date with recommendations about European cherry fruit fly management and restrictions, including advocating for NY growers in a national meeting to re-assess quarantine restrictions.
- Collaborated with the Motts facility to help identify internal lepidoptera and stink bug problems in incoming processing fruit
- Worked closely with Dr. Lynn Sosnosie to set up a research trial looking at potential Paraquat-resistant marehail in a Wayne County orchard
- Beta testing and advising for PathApp phone application to help track and diagnosis fruit diseases (collaboration with Cox lab)
- In communication with biopesticide industry representatives regarding new technology and areas for development relevant to WNY apple industry
- Working with Mike Stanyard, Beth Claypool, and Robert Batt, to provide in-depth pesticide applicator training and test training sessions through a virtual medium in March 2021

### **Professional Development:**

- Attended the (virtual) NE, NY and Canada Fruit Pest Management workshop (Oct 19, 2020). Presentations given by fruit pest management researchers and consultants from across New England and New York; discussed key issues affecting fruit production in the region
- Attended training sessions and prepared lectures to co-teach a Tree Fruit Production course in the "Cornell Small Farms" platform
- "Reconnecting with Purpose" retreat and reflection (Oct 21-23, Nov 20).
- Attended the (virtual) Cumberland-Shenandoah Fruit Workers Conference (Dec 2-4, 2020). Presentations given by fruit pest management and horticulture researchers from across the eastern United States, discussing research and management recommendation updates

### **Stakeholder Contacts:**

- On farm visits –2 total (Niagara Co., Orleans Co, Monroe Co, 2 Wayne Co)
- Conversations via text, phone calls or email – 14

### **Consultant Contacts:**

- Conversations – 3

### **Faculty/Industry Collaborations:**

- Conversations – 18



## Production Economics & Business Management – Mark Wiltberger

### Educational Programs/Presentations:

#### Planning of New 2021 NYS Tree Fruit Conference:

In addition to organizing two sessions on business management and inviting the session speakers, Mark built the conference website, <http://blogs.cornell.edu/nystreefruitconference/>. He worked with other team members to design and test the registration process and built the conference registration page, <http://blogs.cornell.edu/nystreefruitconference/registration/>. This process was a challenge to design - a system was needed that would register over 200 attendees, process their payments, and register them in the Zoom webinar system.

**2021 Empire Producers Expo.** With NY Apple Association and the NY Vegetable Growers Association, organized session and invited grower panelists for Empire Producer's Expo with Vegetable Growers Association: "Apple Grower Roundtable: Dealing with COVID-19" for January 13, 2021.

**On-Boarding of New Farm Employees Project.** Attended meetings with Elizabeth Higgins and Richard Stup about January and February programming for "Reducing Risk in Fruit and Veg Production Through Improved on-Boarding of New Farm Employees" project.

**New York Agricultural Labor in Transition.** Attended meetings with Richard Stup to plan programming for "New York Agricultural Labor in Transition" project.

**Improved Communication with Farmworkers Initiative.** Met with Mary Jo Dudley.

**Crop Enterprise Budgets.** Met with Miguel Gomez and Bradley Rickard.

#### Onboarding Webinar Series: Safe, Productive and Engaged from Day One

– Richard Stup, Elizabeth Higgins, Mark Wiltberger, and dairy specialists – December 2, December 9, December 16. Participated to support farmers in three-week webinar workshops about "Onboarding Farmworkers."

#### Presentations:

"Lake Ontario Fruit Program 2019 Fruit Farm Business Summary," November 9, 2020.

### Publications:

#### Publication of the 2019 Fruit Farm Business Summary

In this quarter, the *2019 Fruit Farm Business Summary* was published. This benchmark analysis is the result of working with the financials of twelve Lake Ontario fruit region farms. During 2020, meetings were held individually with these twelve farms. A fifteen-page spreadsheet was filled out with the farm finances for the 2019 crop year. The twenty-page report serves as a benchmark for the Western NY fruit industry.

In addition, each farm's individual finances were summarized and compared to the benchmark in a 19-page

customized *Individual Farm Report*. The report shows the farm's financials, key financial performance indicators, and comparison of the farm's expenses to the benchmark. Follow-up meetings are held with each farm to review both reports and assess financial health of the business and profitability of the crops.

### **Education about COVID-19 Financial Relief and new labor regulations**

In the last quarter of the year, there continued to be COVID-19 relief packages and deadlines for farmers. There were also new federal and state laws coming into effect at the end of the year. Efforts were made through multiple channels to educate and provide information about these new programs. These channels included Fruit Notes articles (for example, ““CFAP 2 Deadline is December 11: Growers Should Look at Applying for this COVID-19 Financial Relief, Fruit Notes,” Mark Wiltberger), “LOF Announcements” via email, and promotion of events such as the “Labor Road Show IV,” a five-day webinar series on these new topics.

### **Newsletter Publications:**

Fruit Notes, Author:

“CFAP 2 Deadline is December 11: Growers Should Look at Applying for this COVID-19 Financial Relief,” Mark Wiltberger. Volume 20, Issue 17, October 28, 2020.

Fruit Notes, Edited:

“CFAP 2—USDA’s Way of Giving You a Check to Help with Your Other COVID Expenses: Take Them Up On It!,” Elizabeth Higgins. Volume 20, Issue 16, October 13, 2020.

“New York Sick Leave Requirement: What We Know, Still Don’t Know, and Action Items,” Richard Stup. Volume 20, Issue 16, October 13, 2020.

“2020 NY Labor Law Updates,” Richard Stup. Volume 20, Issue 16, October 13, 2020.

“Crop Insurance Deadline Nears in New York, Closing Date November 20,” Volume 20, Issue 17, October 28, 2020.

“New York Labor Roadshow IV, November 18 – November 24,” Richard Stup. Volume 20, Issue 17, October 28, 2020.

“LOF Announcements” Email Blasts:

Continuing the practice started at the beginning of the pandemic, email announcements were sent on October 5<sup>th</sup>, October 26<sup>th</sup>, and November 11<sup>th</sup> to all enrollees about relevant articles about regulation deadlines and announcements about upcoming programs.

### **Applied Research/Funded Projects:**

- “Reducing Risk in Fruit and Veg Production Through Improved on-Boarding of New Farm Employees OSP 9 1913,” Elizabeth Higgins PD, Mark Wiltberger co-PD, Richard Stup.
- “New York Agricultural Labor in Transition,” Richard Stup, PI.

## Professional Development:

- “New York Labor Roadshow IV, November 18 – November 24,” 5-day webinar series.
- “Updates for Web seminar: Tree Fruit Market Outlook with Des O'Rourke,” Farm Credit Northwest market outlook webinar, November 13, 2021.
- “Farm Service Agency in New York Coronavirus Food Assistance Program 2” – webinar update on CFAP 2 program from USDA Farm Service Agency

## Other Team Duties:

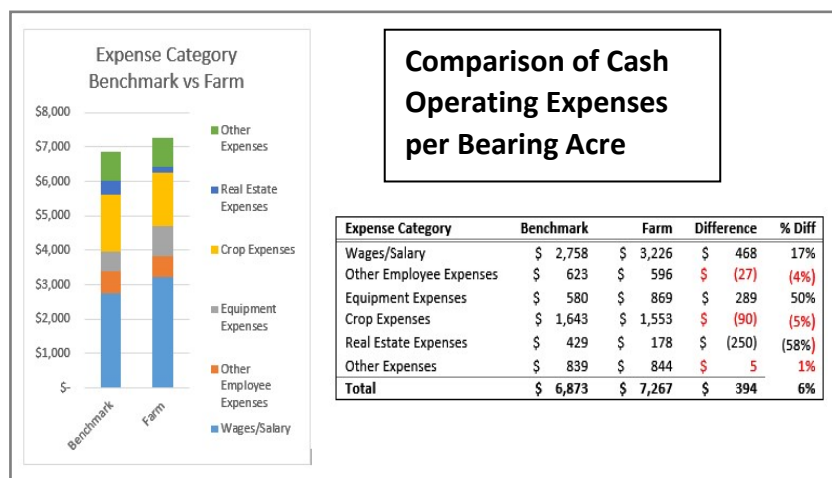
- Participated in weekly and monthly team meetings
- Wrote 2020 3<sup>rd</sup> Quarterly Report
- Returned fleet vehicle. Reported mileage on personal vehicle.
- Presented at LOF Advisory Meeting November 9, 2020.

## Cornell & Other Industry Meetings:

- Attended regular meetings to plan **2021 NYS Tree Fruit Conference** with ENYCHP – Dan Donahue and Mike Basedow.
- Attended Bi-weekly Farm Business Management Specialist Calls.
- Attended Weekly Premier Apple Coop Marketing Calls.
- Attended **Cornell Fruit PWT** meetings.

## Stakeholder Contacts:

- Telephone calls: Approximately 25.
- Zoom meetings: Four 2-hour Zoom consultations with FFBS participants.
- Emails: Approximately 15.
- In-person visits: None, due to COVID-19 restrictions



*In one analysis contained within the customized Individual Farm Report that Fruit Farm Business Summary farm participants receive, farm expenses are compared with the benchmark in a side-by-side bar chart and in a table. Farm differences between the farm and the benchmark are used as a starting point to analyze farm expenses and check for opportunities for better financial performance.*

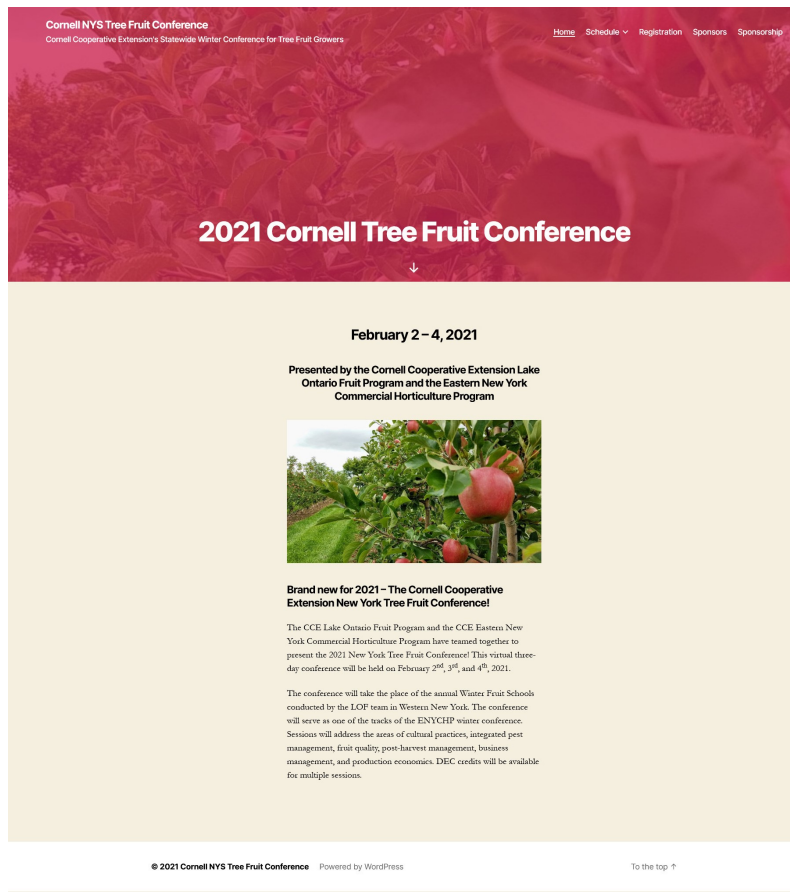


## Quarterly Highlight for LOF Team

Authored by Mario Miranda Sazo, edited by Craig Kahlke, Janet van Zoeren, & Mark Wiltberger

### Technology Adoption, a Collaborative Spirit, and Innovation Can Make a Great Difference for the Benefit of all NY fruit growers during the Pandemic

By far the greatest positive from this pandemic was the forced adoption of technology, acceptance of change, and the incremental steps CCE LOF took to bring some of our stakeholders into the 21<sup>st</sup> century. Soon after finishing the 2020 apple harvest season, our team realized the need for continued virtual educational programming during the winter months of 2021. We got creative, evaluated ideas, and quickly started envisioning a virtual statewide fruit conference for the benefit of all NY growers (Lake Ontario, Hudson, and Champlain fruit regions). We then engaged our colleagues Mike Basedow and Dan Donahue from the Eastern NY fruit program and soon our teams began brainstorming ideas for educational sessions, DEC credits, potential speakers, which virtual technology to use, and how to generate some of the revenue funds generated in the past during in-person meetings. By December 16, 2020, we announced for the first time a 3-day virtual conference filled with exciting and cutting-edge educational topics and several out-of-state speakers at: <http://blogs.cornell.edu/nystreefruitconference/>



A screenshot of our home page for our conference at:

<http://blogs.cornell.edu/nystreefruitconference/>