



Cornell Cooperative Extension Lake Ontario Fruit Program Quarterly Report April - June 2020

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

*Monroe, Niagara, Orleans,
Oswego & Wayne*

Overview: The second quarter of any season for our team usually marks a stark transition to field work as soon as green tip begins in apple. We all knew this year was going to be in huge contrast to all others! The COVID-19 pandemic continued to create new challenges, as well as opportunities, for LOF.

Many Zoom meetings were held with CCE/Cornell and the regional teams to check-in and provide suggestions for the transition. “Zoom fatigue” quickly became a reality!

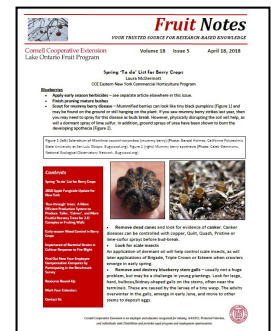
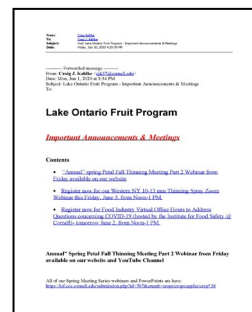
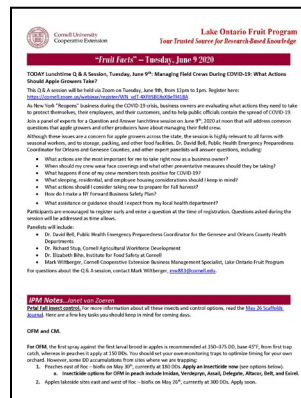
Education: The switch to all virtual programming was certainly an abrupt one for CCE and many other industries. As time went on, we learned that we were not going to be able to hold any of our traditional field meetings during the spring or summer. Not only have these meetings (in particular our Petal Fall Thinning meeting and annual LOF Summer Tour) been a great source of education and networking, but they brought in a significant amount of PGF as well. While LOF wasn't as far ahead as some of the regional Ag teams in the use of video and podcast technology, we already had most of the equipment and training and were ready for the challenge. The eight Zoom webinars that LOF organized/sponsored from March 26 to June 24 were truly a team and Cornell effort. LOF, along with Cornell faculty Terence Robinson, Juliet Carroll, Lailiang Cheng, Kerik Cox, and Art Agnello gave valuable input to our programming ideas and all gave presentations on the webinars. I especially wish to express our gratitude to **Dr. Terence Robinson** for his willingness to present multiple programs as part of our statewide effort with precision crop load management. In addition, this extremely timely information would not have been made available to our stakeholders without the tireless number of hours spent by our technician, Liz Tee. Liz painstakingly downloaded/rendered/edited/posted and solicited the pertinent info that has turned out to be extremely professionally done. Without Liz' dedication to our efforts, none of this would be possible. As far as the reduction of potential PGR, we have solicited numerous sponsors of our efforts, and to date have significantly offset the loss of revenue from our cancelled summer tour.

The Growing Season: Despite the pandemic unfolding all around us, life on the farm progressed as usual. An apple growing family that has worked with LOF for years, K.C. Bailey Orchards, produced this video, *#stillfarming #stilllearning at KC Bailey Orchard*: <https://www.facebook.com/watch/?v=221351582300724>

With a relatively mild winter, we were worried about having an early spring, and it materialized. We had green tip on apples in late March, about 2 ½ weeks ahead of average. However, all of April was colder than average, as was the first 2 weeks of May. In fact, there was blowing snow at least 3 times per week throughout that time period. Consequently, phenological development in tree fruit progressed very slowly. In addition, there were several nights during this time period in which nighttime low temps dipped into the “damage” categories for up to 4-8 hours on many farms. Despite the early start, the colder temps for the 6 weeks following budbreak pushed bloom to a later than normal time period, ~ 2 weeks. In summary, a start 2 ½ weeks earlier than normal but full bloom 2 weeks later than normal! How's that for climate change?!? Then we skipped spring and went right into summer with temps in the upper 80's and lower 90's on Memorial Day weekend. This made chemical thinning recommendations for our precision crop load management projects (Mario, Craig, Liz heavy involvement) very difficult, as the trees were quite stressed and carbohydrate deficits (CHOD) were at record lows during some critical thinning windows. When CHOD are very low, it is very easy to over-thin your apple crop. In you don't chemically thin at all, you could have an expensive hand-thinning bill. In addition, extensive evaluations by the entire LOF team revealed a lot of damage to “king” flowers. King damage makes chemical thinning more difficult and less predictable. Because of this, most growers decided not to try our bloom thinning recommendations on Honeycrisp and other biennial bearing varieties with the use of the pollen tube growth model. The cold April and early May also brought above average precipitation, which also brought on more risk of the apple scab fungus. Therefore, Janet was very busy running scab models and making recommendations to growers to manage this

By The Numbers:

Team Publications:	Editions
Fruit Notes	6
Email Blasts	10
Fruit Facts	26



Sample “Email Blast”

Sample “Fruit Notes”

Sample “Fruit Facts”

Presentations by LOF Team	Virtual Meeting:	Presenter:
<i>“Module 1- Introduction to Produce Safety and FSMA – Are You In or Out?”</i>	PSA Temporary Online GTC, April 29	Kahlke
<i>“Module 5.2- Agricultural Water – Postharvest”</i>	PSA Temporary Online GTC, April 30	Kahlke
<i>“LOF Team Update”</i>	CCE Monroe Board Meeting, May 21	Kahlke
<i>“Follow up to Part I, and Answering Questions for Webinar Attendees”</i>	LOF Petal Fall Thinning Recommendations, Part II, May 29	Miranda Sazo
<i>“What am I Seeing in the Field?”</i>	LOF 10-13 mm Thinning Recommendations, June 5	Miranda Sazo
<i>“Factors to Consider to Optimize Pollination this Spring”</i>	LOF Virtual Pink Meeting, May 11	Van Zoeren
<i>“Introduction to Spotted Wing Drosophila”</i>	LOF Summer Insect Management in Cherry, June 22	Van Zoeren
<i>“Business Updates”</i>	LOF Virtual Petal Fall Meeting, Part II. May 29	Wiltberger
<i>Introduction of Speakers and Format, “Background:COVID-19 in NY, NY Forward Plan, NY Ag Guidance”</i>	Q & A Session: Managing Field Crews during COVID-19: What Actions Should Apple Growers Take?, June 9	Wiltberger
<i>Introduction of Speakers and Format, “B Background:COVID-19 in NY”</i>	<i>Q & A Session - Managing Fruit and Vegetable Farms During COVID-19: What Actions Should Farms Take?, June 24th</i>	Wiltberger

Selected Publications by LOF	Periodical	Author(s)
<i>Strawberry Harvest & Shipping Considerations</i>	Fruit Notes, Volume 20, Issue 10.	Kahlke
<i>Special considerations for better managing the potassium and calcium levels in young and mature Honeycrisp apple orchards in WNY</i>	Fruit Notes, Volume 20, Issue 5.	<u>M. Miranda Sazo</u> and L. Cheng
<i>Management, fertilization, and irrigation for the two year 'Grow-through' nursery tree strategy</i>	Fruit Notes, Volume 20, Issue 6.	T. Robinson, L. Cheng, and <u>M. Miranda Sazo</u>
<i>Nitrogen and Potassium: Two Key Elements for Fruit Production</i>	Fruit Notes, Volume 20, Issue 6.	L. Cheng and <u>M. Miranda Sazo</u>
<i>Using Computer Vision to Detect Foliar Diseases in Apples</i>	Fruit Notes, Volume 20, Issue 7.	<u>van Zoeren</u> and Khan
<i>Model Madness: Was There Really a "High Risk" of Fire Blight Infection Over the Weekend?</i>	Fruit Notes, Volume 20, Issue 8.	<u>van Zoeren</u> and Cox
<i>New Training Requirements for Mixing, Loading & Applying Paraquat</i>	Fruit Notes, Volume 20, Issue 8.	<u>van Zoeren</u> and Sosnoskie

Research:

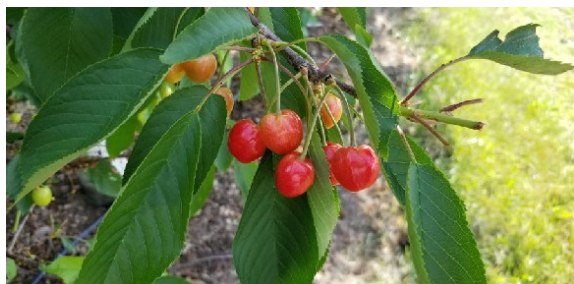
Activity/Proposal/Grant	Person(s)	Funded (Y/N) or Unfunded/ Preliminary Research (UPR)
<i>Precision Orchard Management</i>	Robinson, Miranda Sazo, Kahlke, Tee, et. al	Yes-ARDP
<i>Apogee and Manganese for bitter pit control on Honeycrisp</i>	Robinson (PI), Cheng, Miranda Sazo	Yes-ARDP
<i>A Comprehensive Variety & Acreage Survey for New York</i>	Kahlke, Tee, Wiltberger, Miranda Sazo	Yes-ARDP
<i>Precision Crop Load Management for Apples" (Robinson, PI \$4,500,000)</i> Received notice this quarter that the grant has been fully funded! This is a 4yr project that starts in September	Robinson (PI), Miranda Sazo, Kahlke, et al. 80K total to LOF over 4 yrs	Yes-USDA-SCRI
<i>Testing the role of latent viruses in the</i>	Fuchs (PI), Miranda Sazo, van Zoeren	Yes-ARDP

<i>decline of apple trees on G.935</i>	et. al	
<i>Improved On-farm Nursery Management</i>	Robinson, Miranda Sazo, et. al	Yes-ARDP
<i>Managing Nutrient Balance for Effective Mitigation of Bitter Pit in 'Honeycrisp'</i>	Cheng & Miranda Sazo	Yes- ARDP
<i>Cooperative Pest Management Surveys</i>	van Zoeren, Tee et al.	Yes- NYSDAM
<i>Optimizing Herbicide Strategies for Weed Control, Tree Growth, and Soil Quality in High Density Apple Orchards</i>	Van Zoeren & Basedow (Co-PIs)	Yes- ARDP
<i>Prohexadione Calcium to control fire blight</i>	Wallis, Cox, and van Zoeren	Unfunded
<i>Refinement and Implementation of Newly-Developed Technologies to Significantly Reduce Producer Losses to Bitter Pit in the Honeycrisp C.V. Apple</i>	Donahue, Kahlke, Basedow, Tee, et. al	Yes-NYFVI
<i>Reducing Risk in Fruit and Veg Production through Improved On-Boarding of New Farm Employees</i>	Higgins & Wiltberger (Co-PIs)	Yes-USDA

Business Consultation:

Specialist	Site Visit*	Phone/Texts/Emails
Kahlke	0	~68
Miranda Sazo	0	~120
Van Zoeren	0	~83
Wiltberger	0	~84

***COVID-19 restricted farm visits outside of project requirements**



Selected Professional Development and Training:

Activity	Team Member(s)	Comments:
CCE Regional Ag Team - Team Leader Monthly Zoom Calls	Kahlke	As needed, were more frequent during early part of pandemic, March-April
Produce Safety Alliance Educators Monthly Zooms	Kahlke	
Attended CULearn “Allyship” – <i>How to Help Your Black Colleagues</i> and “ <i>What's Underlying the Tension Between Black Communities and Police?</i> ”	Kahlke	CU Learn
Explored “How to be an Antiracist Resources”	Kahlke	CU Learn
Signed up to receive the eBook: <i>How to Be an Antiracist</i> by Ibram X. Kendi.	Kahlke	
Attended two CCE/Cornell Berry Call-Ins	van Zoeren, Kahlke	learned what other colleagues are seeing, concerns they are addressing, and staying up to date with berry research projects
Premier Apple Co-Op Zoom Calls (Two per month)	Wiltberger, Kahlke	Crop Estimate on one in place of usual in-person meeting
Attended CCE Statewide town Hall webinar on April 8	Kahlke, Wiltberger	
Attended the CCE Regional Ag Team Town Hall webinar on April 24	Kahlke, Wiltberger	
Attended April 24 webinar COVID-19 Mgmt. Options for Small Growers (hosted by MSU)	Kahlke	
Attended April 13 webinar hosted by Julie Suarez of Cornell to assess training and resource needs for producers in the wake of the pandemic	Kahlke	
Audio-Visual Webinar	Wiltberger	Hosted by R.J. Anderson
Weekly listening sessions with Peter Jentsch at the Hudson Valley Research Station	van Zoeren	learned about pest management priorities in the HV, which tends to be several weeks ahead of phenology here
DEC 30 hour commercial pesticide technician course ONLINE	van Zoeren	In process

Fruit Quality Management – Craig J. Kahlke

Educational Programs/Presentations:

- LOF Virtual Spring Series
 - The Team organized a series of Zoom Webinars as a “replacement” for the Petal Fall Thinning Meetings that we would normally have in-person
 - We broke the topics up into separate webinars
 - All are available on our YouTube channel at:
<https://www.youtube.com/channel/UC6PXjEkx7nLDY1A81Ek5brQ>
 - Pruning Honeycrisp for Annual Production (original date March 26, published April 4) <https://www.youtube.com/watch?v=nWRqJRJsM3o>
 - This was a full team effort with Liz capturing Terence and Mario in an apple orchard with Janet, Mark, and Craig managing the webinar from their homes
 - ~65 attendees live, and currently 814 views
 - Spring “Pink” Meeting – broken into 5 parts, including a Q & A (original date May 11) <https://www.youtube.com/watch?v=01UQFjXw4tc&list=PLYLbxsK4pTXVuQK5b-27y9YdldjSurqGP>
 - Janet did the managing of this intensive program that included 4 speakers and managing Q & A
 - Nearly 100 attendees, currently 26-82 views
 - Spring Bloom Meeting (original date May 21) https://www.youtube.com/watch?v=aZzNoQC_DhA&list=PLYLbxsK4pTXVuQK5b-27y9YdldjSurqGP&index=6
 - Introduced speakers/sponsors for this important effort to try to get growers to thin Honeycrisp at bloom
 - ~40 attendees, currently 37 views
 - Petal Fall Thinning Recommendations
 - Part 1 : (original date May 27) <https://www.youtube.com/watch?v=0Jlv9fw0J88&list=PLYLbxsK4pTXVuQK5b-27y9YdldjSurqGP&index=7>
 - ~47 attendees, currently 40 views
 - Part 2: (original date May 29) <https://www.youtube.com/watch?v=CnjtMuGDa-Q&list=PLYLbxsK4pTXVuQK5b-27y9YdldjSurqGP&index=8>
 - Introduced speakers and sponsors for this critical thinning efforts
 - ~35 attendees, currently 40 views
 - 10-13 mm Thinning Recommendations (original date June 5) <https://www.youtube.com/watch?v=IGKCCPvei7U&list=PLYLbxsK4pTXVuQK5b-27y9YdldjSurqGP&index=11>
 - Introduced speakers & sponsors in this “last chance” to effectively thin apples to maximize fruit size and prevent costly hand-thinning labor
 - ~60 attendees, currently 40 views
- Worked closely with Mark Wiltberger to disseminate timely COVID-19 information via many channels
 - Email blasts to our enrollees, posts on our website, publications in our *Fruit Notes* newsletter and more timely *Fruit Facts*, and in two webinars organized by Mark (see Marks’ Business Mgmt.

section below)

- Produce Safety Alliance Temporary Online Grower Training Course April 29-30 – see Quarterly Highlight below
- On-Farm Readiness Reviews (OFRR's)
 - Prepared technical report for 1st quarter, submitted April 9
 - Conducted an OFRR on a fruit farm in Wayne County with 2 NYS Dept. of Ag & Mkts inspectors on 6/30
- Worked with CCE ED's and Mark in our 5 partner counties to notify our enrollees of multiple pickups of face masks and hand sanitizer
- Conducted cold damage assessment of apple buds on May 6 & 14, checked phenology on June 25

Publications:

Fruit Notes

- Edited 6 newsletters in the quarter, including a "Special Edition" discussing electronic versions only during office closing.
- Sorted through numerous announcements about workshops/conferences/meetings/surveys and along with the pertinent on-line registration links, put them in the newsletter.
- Wrote (re-edit with added COVID-19 info) "*Strawberry Harvest & Shipping Considerations*" article Fruit Notes, Volume 20, Issue 10, Pp 6-8.
 - We contracted a printer in Eastern NY after a short time

Email Blasts to Enrollees

- Edited and sent out 7 email blasts or sent to Kim (our admin) to send out to our enrollees
 - These are usually timely virtual meeting reminders
 - Mark sent at least an additional 3 on his own

Applied Research Projects:

- ARDP – "A Comprehensive Variety & Acreage Survey for NY" (Kahlke, \$4,587) – Sent final report to ADRP board.

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

- USDA-SCRI Grant Proposal "*Precision Crop Load Management for Apples*" (Robinson, PI \$4,500,000)
 - Received notice this quarter that the grant has been fully funded!
 - This is a 4yr project that starts in September
 - 80K total goes to LOF
- Notified CCE Admin of my intent to submit a pre-proposal (due July 23)

ADRD Grant Proposal "*Improving Fruit Quality to Mitigate the Effects of Climate Change through the Use of Reflective Fabric in Western NY*" (Kahlke, PI \$19,988)

- Did not receive funding. Budgets were cut due to COVID-19, and received constructive criticism.

Other Team Duties:

- Team Leader Administrative Duties
 - Approved invoices and vouchers as needed

- Reviewed Year-end financials with Beth & Peter May 7
- Attended WNY AMG Meeting Via Zoom on May 15
- 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
 - COVID-19 Zoom calls
 - Group and other email lists
- Organized virtual monthly team meetings and weekly conference calls.
- Compiled, edited, and disseminated 1st Quarter Report.
- Gave an LOF Update for CCE Monroe staff on May 6
- Gave an LOF Update for CCE-Monroe BOD's on May 21
- Co-hosted Cornell Hard Cider Virtual Office Hours on April 23 & May 7
- Attended the first of several Center for Produce Safety Symposium webinars on June 23

Other Area-wide Education & Advocating

- Zoom with Gore about PH technology April 14
- Phone Call with Kyle Dunno, Professor at RIT, about funded project ideas for collaboration with LOF on June 18

Professional Development:

- Attended multiple CCE Regional Ag Team Leader Zooms
 - As the pandemic and racial unrest unfolded, Zoom check-ins were held as frequently as twice per week, and then were pushed to once per week. CU/CCE were extremely helpful in the gathering and disseminating of the latest information. In addition, CCE/CU Admin were very sincere in asking how everyone was doing on a personal level
- Attended CULearn "*Allyship*" – *How to Help Your Black Colleagues* and "*What's Underlying the Tension Between Black Communities and Police?*"
- Explored "How to be an Antiracist Resources"
- Signed up to receive the eBook: *How to Be an Antiracist* by Ibram X. Kendi.
- Attended CCE Statewide town Hall webinar on April 8
- Attended the CCE Regional Ag Team Town Hall webinar on April 24
- Participated in interview process of all 3 candidates for Cornell AgriTech's' position on Climate Change mitigation in Tree Fruit and Grapes
 - Viewed all 3 Zoom seminars
 - Participated in Extension/Industry Q&A after seminars
 - Emailed committee chair my assessments
- Attended April 24 webinar COVID-19 Mgmt. Options for Small Growers (hosted by MSU)
- Attended two weekly Berry Call-In Zoom meetings on May & June
- Attended April 9 webinar hosted by Cornell Agritech on FSMA Inspectors for Cider Producers
- Attended April 13 webinar hosted by Julie Suarez of Cornell to assess training and resource needs for producers in the wake of the pandemic
- Viewed refresher 2020 version of Pollen Tube Growth Model webinar (Cornell's Greg Peck and CCE Eastern NY Mike Basedow) on April 9

Stakeholder Contacts:

- Assisted 21 stakeholders (growers, packinghouse operators, industry, and crop consultants) via text, 37 via phone, and ~ 10 via email.

Consultant Contacts:

- Had a Zoom discussion between our 4 LOF specialists and 2 AgriAssistance employees
 - AgriAssistance is a large tree fruit consulting firm in Wayne County
 - We explored options for sharing resources but ultimately decided to not collaborate

Faculty Collaborations/Consultations:

- Had programming discussions with Terence Robinson, Art Agnello, Julie Carroll, Esther Kibbe, and Kerik Cox via phone and email.

Quarterly Highlight for Fruit Quality Management – Craig Kahlke

Temporary Remote Produce Safety Alliance Grower Training Course a Success

Background: One of the requirements of grower compliance with the Food Safety Modernization Act (FSMA) is that at least one member from each farm attend a Produce Safety Alliance Grower Training Course (PSA GTC). The PSA GTC up until the pandemic had only been an in-person training that covered 7 modules with an average time of ~ 7 hours. As a lead trainer certified by the PSA, I've organized and taught in many of these courses over the past 4 years. All of these have been a full day course, in which lunch and refreshments were served, and a key requirement to be in compliance (and receive a certificate) is for the grower representative to be present and "exposed" to the entire curriculum. We had an in-person PSA GTC, which was to be the last before the start of the growing season, scheduled for March 19 at CCE-Wayne in Newark. This is the "final" year of compliance for the smallest businesses that fall under FSMA. By mid-March, there were 26 people pre-registered that represented 22 farms. Of these, at least 12 farms needed this course to be in compliance with FSMA. While we were aware that the regulators would probably relax inspections on small farms in the wake of the pandemic, we wanted to explore alternative opportunities to get growers into compliance if it all possible. Thanks to the proactive measure of the PSA, they quickly developed a temporary online GTC that would satisfy the requirements.

Target Audience: Fruit & Vegetable growers that need to be in compliance with FSMA in 2020 (smallest business size and "last" year of compliance).

LOFT Response: I quickly contacted Betsy Bihn, Gretchen Wall, and Michele Humiston of the PSA to tell them of my intent to "host" a remote temporary GTC. They informed me of key requirements, and I worked with other trainers to find dates. We decided that since the growing season was starting, we would split the training into two days- consecutive afternoons. A key requirement of this format was that all participants have webcams on so the trainers could view them at all times to make sure they were engaged. With internet speeds/bandwidths a possible barrier, it was decided to offer only 15 growers. Priority was given to those who registered first.

Predicted Outcomes: Our remote GTC was held on the afternoons of April 29 & 30. Robert Hadad and Caitlin Vore (CCE-CVP), Beth Claypoole (CCE-Wayne), and Nathaniel Lartey (CCE-Orange) were the other trainers. Beth agreed to moderate participant engagement/questions when I was presenting. We had no connection issues, and the course was presented in full. Evaluations indicated that the grower learned about basic GAPs and FSMA requirements, and appreciated the format. We had 17 people receive certificates from 12 farms and one crop consultant business. These folks don't have to worry about being out of compliance in 2020, despite the limited possibility that these farms would undergo an inspection this season.

Cultural Practices – Mario Miranda Sazo

Educational Programs/Presentations/Publications:

Fruit Notes: Wrote/modified/summarized/requested articles including:

- “2020 pruning video recording now available” (L. Tee, M. Miranda Sazo, and T. Robinson)
- “Special considerations for better managing the potassium and calcium levels in young and mature Honeycrisp apple orchards in WNY” (M. Miranda Sazo and L. Cheng)
- “Management, fertilization, and irrigation for the two year ‘Grow-through’ nursery tree strategy” (T. Robinson, L. Cheng, and M. Miranda Sazo)
- “Announcing the first virtual CCE LOF Spring Pink meeting via zoom in 2020” (M. Miranda Sazo and J. van Zoeren)
- “Nitrogen and potassium: Two key elements for fruit production” (L. Cheng and M. Miranda Sazo)
- “Quantitative assessments of cold injury and practical implications for blossom thinning of Honeycrisp, Fuji, and Gala” (T. Robinson, M. Miranda Sazo, J. van Zoeren, C. Kahlke, and E. Tee)
- “Cornell horticulture graduate now breeding apples in New Zealand” (B. Orcheski, requested by MMS)
- “Apples: sweet, crunchy, and...brown? An introduction to russetting in apple” (B. Gutierrez, requested by MMS)
- “Now is the time to start promoting the formation of Honeycrisp flower buds for next year” (M. Miranda Sazo and T. Robinson)

Fruit Facts (FFs): In conjunction with Janet, revamped/coordinated/ and sent first IPM/Hort information via *Fruit Facts* in March 20, 2020. MMS wrote Hort notes and provided pics/tables/slides/drawings related to tree planting, grafting, nitrogen/potassium use, pruning of NY1, NY2, Honeycrisp, Fuji, Gala, nitrogen for weak cultivars years 1, 2, 3, and 4, recommended the use of apogee at pink for Honeycrisp for suppression of bitter, updated growers about main precision thinning/nutrition remarks presented at the zoom webinars, etc. Kept growers updated about new horticultural techniques in the early part of spring.

2020 First virtual CCE LOF Spring Pink meeting (Zoom webinar), YouTube pruning video, etc.

For more details, please review Q2 highlights.

Presentation(s) Given – Zoom webinars:

All short, 5-10 mins presentations, Q&A about pruning, blossom, and chemical thinning during several CCE LOF zoom webinars in Q2.

Applied Research Projects:

Precision Chemical Thinning trials at DeMarree and Zingler (ARDP/Robinson)

- Flagged trees at DeMarree in Wayne (one Gala trial, one Premier HC trial, and one regular HC trial)
- Flagged trees at Zinglers in Orleans (one regular HC trial, Janet helped for all counts and fruit growth measurements)
- Counted blossoms

- Took six fruit diameter measurements for each trial with Chris Whipple and Nicole
- All data was entered and submitted to TLR for analysis and thinning recommendations
- Evaluated final fruit counts early in July

Pollen Tube Growth Model trial at DeMarree (ARDP/Robinson)

- Used same blocks as describe above
- Monitored needed king blossoms/tree/site to start trial
- Measured styles
- Guided grower with data entry for PTGM
- Recommended two ATS sprays at 60% for the Gala trial and three ATS sprays for the two HC trials
- Evaluated efficacy of ATS trts versus untreated sections early in July

Testing the use of Apogee and Manganese for bitter pit control on Honeycrisp (ARDP/Cheng and Miranda Sazo – second year in collaboration with Robinson in 2020)

- Trials being conducted at Cornell AgriTech (multiple Honeycrisp blocks)
- LC and I proposed treatment list and provided Mn product for 2020 trials
- Research plots were laid out by Spenser Howden (new research support specialist)
- All treatments were sprayed by the Fruit Research Unit (FRU, Cornell AgriTech)
- Collection of fruit samples, processing, and fruit analysis will be conducted by Cheng and Miranda Sazo in July (peel sap) and the fall in Ithaca

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

- The same set of trees inoculated with virus and grown during two years by a nursery in Wolcott (2017-2018) were planted at an experimental orchard at Cornell AgriTech on Monday June 10, 2019 (32 RRHC trees on G.935 were planted in the fall of 2019)
- This quarter Mario and Janet trained and supported the trees to the wires (multiple days)
- Data collection (trunk diameter, initial tree height, shoot length, return bloom) taken by Mario and Janet
- Trickle irrigation was installed by FRU
- Irrigation was started on June 1 (2-3 times/week)
- Trees established and grew very well this quarter

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

- MMS coordinated the bench grafting of trees with Sergio Rosario in early April
- Stored bench grafts at K.M. Davies until day of planting
- Inoculated roots with mycorrhizae
- Provided consultation for all aspects related to ground/foliar nutrition, irrigation, de-shooting, chemical branching, and trellising
- Installed six soil probes and one time-lapse camera
- Nurseries trees grew very well and a very robust/innovative mini-trellis was established by grower cooperator

Honeycrisp project with Lake Ontario Fruit Inc., (Cheng & Miranda Sazo & Scott Henning and a group of Orleans fruit growers)

- We moved this project to a phase 2
- A Peel Sap Analysis in HC webinar is scheduled for July 14
- Fruit sampling will occur the week of July 13-17, 2020 (to target fruit size around 50-60gr/fruit, or golf ball size across most of the sites)

Latino project (USDA-BF/Rangarajan)

- There was not significant progress during Q2
- We are still planning how to re-engage with *Master Class* graduates before 2020 harvest
- Project was extended until 2021

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

- Set up two trials with grower cooperators Cherry Lawn Farms and VanDeWalle FF in Wayne
- Ground treatments (muriate potash) were applied after budbreak
- Fruit collection for peel sap will be conducted in July

Ph.D. related class/experimental work (Cheng)

- Attended M-W lectures and finished spring semester via Zoom due to COVID-19
- Submitted required assignments, reports, final research paper
- Gave oral presentation via Zoom at the end of semester
- Moved potted trees from greenhouse to experimental orchard on early April
- Conducted tree destruction evaluation at the purple greenhouse
- Placed all samples in the dryer in Ithaca
- Pruned/supported/trained trees as they developed during Q2
- Conducted return bloom evaluation, measured trunk caliper, de-blossomed top of trees
- Conducted manual blossom thinning and early fruit thinning
- Adjusted crop load per tree as required per TCA calculations
- Ground all dormant samples and submitted to CALS lab in late June
- Simon Fines helped with all aspects related to the sand culture experiment

Other Team Duties:

- Attended LOF team meetings and conference calls as needed
- Helped Craig to revamp *Fruit Facts* in close collaboration with Janet
- Helped Craig and all CCE LOF team members to strategize, adjust, plan, organize, and deliver 2020 CCE LOF Zoom webinars
- Led field effort for quantitative cold injury evaluations and produced a publication
- Liz and I produced a new YouTube video
- Coordinated the work with Janet and wrote as many Hort notes as needed for *Fruit Facts* during Q2
- Reported fleet mileage as needed during Q2
- Authored and submitted 4 newsletter articles to LOF editor
- Requested two articles for newsletter
- Submitted Jan.-March 2020 Quarterly Report

Committee & Board Meetings

Participated in a search committee for a fruit crop physiology faculty position (Climate Change Mitigation in Tree Fruit and Grapes) at Cornell AgriTech

Professional Development:

- Without activity this Q2

Stakeholder Contacts

- Minimized farm visits and exposure with growers and orchard workers this Q2. Most of the field activities were carried out to conduct the most important field research goals in WNY orchards and Ithaca campus. Assisted 15 growers via 20-30 emails, 40 phone communications, 50-60 texts (pics, videos, voice messages, etc.).
- Worked very strategically and cultivated a few very successful working relationships with new growers.

Quarterly Highlight for Cultural Practices – Mario Miranda Sazo

CCE LOF Team Adapted, Innovated, and Excelled during the 2020 ‘COVID-19 Disruption’

This past quarter CCE LOF excelled in the middle of the pandemic and quickly adapted by delivering the first virtual meeting via Zoom, the launching of a well-produced YouTube pruning video, and a series of well attended Zoom webinars during the chemical thinning season. In addition, all webinar recordings and educational materials were quickly edited and posted by Liz Tee on our website.

The entire LOF team (including technical and administrative support) identified the weakness and strengths of each of us, evaluated the conditions that would help for greater success in the middle of COVID-19, and ended up delivering an exceptional and modern educational program. As a result, we radically reinvented the delivery of traditional commercial tree fruit production information and created tremendous value for our regional organization.

You are viewing Terence Robinson's screen View Options

Petal Fall Spray Suggestions for 2020:

- Best petal fall spray timing based on DD is forecasted to be
 - Thursday May 28 – Saturday May 30
- Suggestions
 - Thursday and Friday with temperatures in the mid 80's and a daily deficit of -90 and a 7 day average deficit of -40 are perhaps the best days if you want aggressive thinning.
 - Rain may complicate Thurs. and Fri. (We need 8 hours between application and any rain)
 - Saturday with temperatures in the mid 70's and a daily deficit of ~-40 is perhaps the best day if you want mild thinning.
 - With either timing use the normal rate of
 - 7.5ppm (3oz) NAA + 1 pt/100 of Sevin on Honeycrisp, Gala and Snapdragon (mature)
 - 5ppm (2oz) NAA + 1 pt/100 of Sevin on McIntosh
 - 5ppm (2oz) NAA with no Sevin for Cortland
 - 64oz Maxcel/100 DTRV + 1-2pt Sevin per 100 gal will likely thin well in 2020
- It is possible with both bloom thinning and petal fall thinning a near perfect thinning may be achieved in 2020

Participants: 47 Q&A Chat Share Screen Record

Mario Miranda Sazo
Terence Robinson
Craig Kahlke
Jason Woodworth

Figure 1. A zoom screen shot showing CK, MMS, TLR, and 47 participants when attending a CCE LOF zoom webinar on May 27, 2020 (petal fall thinning season).

Carbohydrate Balance - Williamson NY, May 27, 2020

Question and Answer

Open (2) Answered (1) Dismissed

Roger Bannister 12:20 PM
Do we know if the extended period between green tip and bloom will effect carbohydrates and therefore thinning?
Craig Kahlke would like to answer this question live.

Craig Gfeller 12:21 PM
Is there any issues will spraying at night to avoid pollinator issues or is there a need for sunlight?

Jill MacKenzie 12:22 PM
We have 2"-5" of shoot growth. Do we have sufficient time to apply Apogee without negatively affecting petal fall thinning?

Max. 18 15 12 10 8 6 4 2 0

Standard 0.78 0.77 0.76 0.75 0.74 0.73 0.72 0.71 0.70 0.69 0.68 0.67 0.66 0.65 0.64 0.63 0.62 0.61 0.60 0.59 0.58 0.57 0.56 0.55 0.54 0.53 0.52 0.51 0.50 0.49 0.48 0.47 0.46 0.45 0.44 0.43 0.42 0.41 0.40 0.39 0.38 0.37 0.36 0.35 0.34 0.33 0.32 0.31 0.30 0.29 0.28 0.27 0.26 0.25 0.24 0.23 0.22 0.21 0.20 0.19 0.18 0.17 0.16 0.15 0.14 0.13 0.12 0.11 0.10 0.09 0.08 0.07 0.06 0.05 0.04 0.03 0.02 0.01 0.00

48 24.4 -6.77 - 133.0

Figure 2. Two screen zoom pics showing written questions submitted by three WNY apple growers during a CCE LOF zoom webinar in the spring of 2020.

Integrated Pest Management – Janet van Zoeren

Educational Programs/Presentations/Publications:

LOF Virtual Pink Meeting:

- “Factors to consider to optimize pollination this spring” (presented online through Zoom, reaching 99 people)

LOF Virtual Summer Fruit Series:

- Helped organize “Summer insect management in cherry” webinar (through Zoom, reaching 25 people)
- Presented “Introduction to Spotted Wing Drosophila” (presented online through Zoom, reaching 25 people)

Publications:

Scaffolds Articles:

- Wallis, A., Cox, K., and van Zoeren, J. *Streptomycin Resistant Fire Blight in 2020*. Scaffolds. Volume 29, No. 13. Pp 3-4.

Fruit Notes Articles Written:

- *Announcing the First Virtual CCE LOF ‘Spring Pink Meeting’ via Zoom* (co-authored with Mario Miranda Sazo)
- van Zoeren, J. and Khan, A. *Using Computer Vision to Detect Foliar Diseases in Apples*. Pp 4-5.
- van Zoeren, J. and Cox, K. *Model Madness: Was There Really a “High Risk” of Fire Blight Infection Over the Weekend?* Fruit Notes, Volume 20, Issue 8. Pp 3-4.
- van Zoeren, J. and Sosnoskie, L. *New Training Requirements for Mixing, Loading & Applying Paraquat*. Fruit Notes, Volume 20, Issue 8. P 3.
- Robinson, T., Miranda Sazo, M., van Zoeren, J., Kahlke, C. and Tee, L. *Quantitative Assessments of Cold Injury and Practical Implications for Blossom Thinning of Honeycrisp, Fuji, and Gala*. Fruit Notes, Volume 20, Issue 8. Pp 1-2.
- van Zoeren, J. and Wallis, A. *Protecting Bees at Bloom*. Fruit Notes, Volume 20, Issue 8. Pp 4-5.
- van Zoeren, J. *2020’s Spring Pest Complex and Concerns*. Fruit Notes, Volume 20, Issue 10. Pp 1-3.

Applied Research Projects:

Weed Management (ARDP; PI-Mike Basedow):

- Randomized reps, set out flagging and signage
- Pre-treatment weed evaluations and tree health assessments
- Every other week weed evaluations from May through present

Virus (ARDP; PI-Fuchs):

- Communicated re trial setup and planning with Miranda Sazo
- Floral vs vegetative bud counts; tree vigor assessments (May 19), Tree growth assessments (June 10), Tree training (June 17 and 24).

Prohexadione Calcium to control fire blight:

- Randomized reps, set out flagging and signage
- Applied Apogee and Regalia to different treatments at “pink” timing
- Applied Serenade and Firewall to different treatments at “bloom” timing
- Applied Apogee to a treatment at “petal fall” timing, and “2 weeks after petal fall” timing

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

- Communicated with Awais Khan in regards to a USDA NIFA grant application

Other Team Duties:

- Attended CCE regional “Town Hall” meetings.
- Worked extensively with Mario and Liz to coordinate and put together the new virtual-format pink meeting.
- Worked together with team to coordinate and facilitate the virtual petal fall meeting.

Committee & Board Meetings:

- Served on planning committee for the 2021 Ag Extension Retreat.

Other Area-wide Education & Advocating

- Ran an insect monitoring trapline across Orleans, Monroe and Wayne counties.
- Collected fire blight samples at seven sites (Niagara, Orleans, Monroe and Wayne counties) to test for Strep resistant fire blight.
- Helped with organization and implementation of new online format of “Special Permit Training”.
- Contacts with DropCopter and Black White Robotics regarding growers/industry collaborations.
- Helped extensively to sample freezing damage across Ontario, Monroe, and Wayne counties.
- Participated in a focus group to guide a revamp of the NYS IPM biocontrol website.

Professional Development:

- Attended weekly Regional Berry Phone calls (learned what other colleagues are seeing, concerns they are addressing, and staying up to date with berry research projects).
- Attended weekly listening sessions with Peter Jentsch at the Hudson Valley Research Station (learned about pest management priorities in the HV, which tends to be several weeks “ahead” of phenology here).
- DEC 30 hour commercial pesticide technician course ONLINE (in process).

Stakeholder Contacts:

- On farm visits – 12 total (5 Niagara Co., 2 Orleans Co, 2 Monroe Co, 3 Wayne Co)
- Conversations via text, phone calls or email – 83

Consultant contacts:

- Conversations – 5

Faculty Collaborations/Consultations:

- Conversations – 19

Quarterly Highlight for Fruit Pest Management

New Revised Online Version of Special Permit Training Allows Certification in the Era of COVID-19

Background:

The special permit training program allows growers who have part-time, seasonal, or short-term employees to sponsor employees for the season, to allow them to apply certain pesticides on the farm, without going through the entire pesticide certification process. It's an important link to keep farmworkers legal, and allow farmers to make all the necessary pesticide applications every year. The training usually takes place in early April at various locations across the state, including one in Orleans and one in Wayne Counties.

Need/Opportunity:

With the regulations in place in 2020 due to the COVID-19 outbreak, we were no longer able to present in-person trainings on April 7th and 8th, as we had been planning to do. We had already communicated that previous plan with growers, and registered people for the in-person training, so needed to find a new format through which to present special permit training, as well as to adequately communicate the changes in the process to all of our growers.

LOF Response:

The special permit training team, led by Dan Donohue, Christy Hoepting, Mike Basedow and myself, with Libby Eiholzer providing Spanish language translations, scrambled this spring to present a virtual version of the training, and to communicate the new plan and process to all of our growers. We have used the LOF newsletters (Fruit Facts and Fruit Notes) as well as our website to communicate the changing plans to our growers. I have been in communication through email and phone with approximately 40 growers in relation to registration and training procedures, many of them on multiple occasions to answer different questions.

In late April we sent out the training packet by email. This included all relevant forms, as well as a pre-recorded video of the entire training presentations. I recorded the IPM section and four label instructions for the training video. These materials were sent to 52 farms (3 from Monroe, 6 from Niagara, 14 from Orleans, 1 from Oswego, and 28 from Wayne Co.).

After the forms were sent out, there was still significant work to be done. For example, several farms were unable to download the materials due to slow internet connectivity – so I downloaded the training videos onto a USB drive and mailed it to those farms. Tests were sent to the Orleans CCE office where myself and Christy Hoepting's team graded them. In total, I have responded to over 25 grower questions since the packets were sent out – these questions included responding to mistakes or additions to their roster of who should receive training, to queries about where to send the tests and signed affidavits, concerns about which products are included on the SPT, and concerns about accessing and using the technology/YouTube videos of the training.

At this time, about half of the tests have come back and most of the trainees have passed the test. Work continues as I will be following up with farms that have not yet returned their training materials, to see if there are any problems, if things were lost in the mail, or to ascertain why those tests have not yet been sent to us to be graded.

Production Economics & Business Management – Mark Wiltberger

Main Focus of the Quarter:

To say that the second quarter of 2020 was unusual is an understatement, to say the least. On April 1st, New York State was several weeks into the Coronavirus crisis in earnest.

In this situation – not encountered in the past 100 years – extremely high uncertainty was the byword. Businesses stopped operating, and people stayed at home under government orders and determined how they could meet essential needs such as shopping for food.

Educational Programs/Presentations/Publications:

Need/Opportunity:

This quarter was mostly about being able to respond quickly to sudden needs of growers to react to the coronavirus pandemic.

For farm businesses, urgent needs included:

- Information on the rapidly changing legislation for COVID-19 financial relief programs.
- Assessment of the immediate and long-term availability of farm labor, including H-2A contracted labor.
- Supply of PPE's to farmers, especially face coverings and hand sanitizer, which were in extremely short supply.
- Assistance on COVID-19 planning for short-term and long-term, in order to re-open retail businesses and create safety plans for near-term and harvest labor.
- Understanding COVID-19 guidance and best practices for farms and the role of the local health department.

In addition, farms needed the usual support for the beginning of the growing season, including:

- Long-term financial planning of the farm by participating in the Fruit Farm Business Summary.
- Assessing the 2019 and 2020 crops.

LOF Response:

Along these lines, several major lines of response occurred.

For COVID-19 response:

- Immediate publication in *Fruit Notes*, or *Email blasts*, timely information about the government COVID-19 financial relief programs such as PPP (Paycheck Protection Program), EIDL (Economic Injury Disaster Loan), CFAP (Coronavirus Food Assistance Program), and the CARES Act ("Coronavirus Aid, Relief, and Economic Security Act"), including articles and announcements about webinars.
- Contact farms and H-2A agency contractors to assess the availability of H-2A labor.
- Identify sources of face coverings and hand sanitizer, and work with county CCE association EDs to assist in distribution to farms.
- Participate in NY Forward Business Safety Plan Support Task Force to develop guides for farms to create a NY Forward Business Safety Plan and conduct outreach to promote use of the guide.

- Contact local health departments to assess what farms need to do to address COVID-19 and facilitate conversations between farmers and the local DOH
- Organized series of Q&A webinar sessions for farms with panelists from Cornell and local Department of Health.

For support of standard business functions, LOF response was:

- Continue working remotely by Zoom with farms participating in Fruit Farm Business Summary, in order to support short-term and long-term farm planning.
- Assess the marketing and movement of the 2019 crop and participate in industry meetings to assess the potential of the 2020 crop in a season with multiple cold events affecting crop size.
- Support the LOF Team with a Spring series of webinars in lieu of field meetings that addressed horticultural and IPM concerns, including precision crop load management of premium varieties.

Webinar Series Organizer – Q & A Sessions with Panel on Managing Farms during COVID-19

Organized a series of Q&A sessions on “Managing Farms during COVID-19” with panelists from Cornell and local Department of Health (See Quarterly Highlight below):

Seasonal grower meeting presentation:

- “2020 LOF Petal Fall Meeting: Business Updates”, presented at LOF Spring Petal Fall Meeting: Online Zoom grower meeting, May 29th, 2020.

Fruit Notes:

As Author:

- “Farmworkers and Coronavirus- What You Should Know, and What You Can Do Now Webinar Recording now Available,” Mark Wiltberger, Volume 20, Issue 5.
- “Guidance for Applying for the Payroll Protection Loan Program,” Mark Wiltberger, Volume 20, Issue 5.
- “Managing Your Fruit Farm through COVID-19,” Mark Wiltberger, Volume 20, Issue 6.
- “Business Updates for COVID-19: Take a Deep Breath... And Look Forward,” Mark Wiltberger, Volume 20, Issue 8.
- “Show Me the (COVID-19) Money! PPP and EIDL,” Mark Wiltberger (CCE-LOF) and Elizabeth Higgins (CCE ENYCHP), Volume 20, Issue 8.
- “Q & A Session: Managing Field Crews during COVID-19: What Actions Should Apple Growers Take? Tuesday, June 9, 12-1 PM,” Mark Wiltberger, Volume 20, Issue 9.
- “Managing Your Farm during COVID-19: Recorded Webinar: Resources for Updating Your Plan,” Mark Wiltberger, Volume 20, Issue 10.

As Editor:

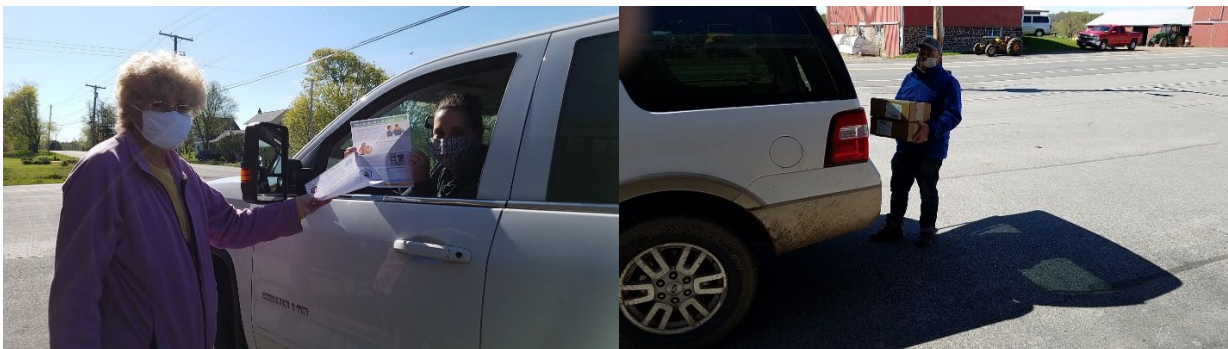
- “CARES Act’s Emergency Resources for Farm Businesses: Paycheck Protection Loan Program,” Elizabeth Higgins, ENYCHP Ag Business Management, Volume 20, Issue 5.
- “COVID-19 and Your Produce Farm Webinar: Recording of Webinar and PDF of Presentation Now Available Online”, Volume 20, Issue 5.
- “Important Tax Law Changes for Northeast Agriculture in the CARES Act: Article and Webinar Recording now available from Farm Credit East”, Volume 20, Issue 5.
- “Interim Guidance for Pre-Occupancy Migrant Farmworker Housing Inspections”, Volume 20, Issue 5.

- “New Apple Tree Crop Insurance Video: April 15 Sign-up Deadline”, Volume 20, Issue 5.
- “Use of Cloth Face Coverings to Slow the Spread of COVID-19,” Center for Disease Control (CDC), Volume 20, Issue 6.
- “DHS and USDA Move to Protect American Farmers and Ensure Continued Flow of America’s FoodSupply”
- “Listening Session Feasibility of Revenue Coverage for Apples”, Volume 20, Issue 6.
- “PPP Fact Sheet #3 – A new interim rule, the first round of funding is depleted. What does the future hold?” Elizabeth Higgins, Eastern NY Commercial Horticulture Program, Nicole Tommell, Central NY Dairy, Livestock and Field Crops Program and Myron Thurston, CCE Madison County, Volume 20, Issue 6.
- EIDL Application Re-Opening for Ag Businesses! Elizabeth Higgins, Eastern NY Commercial Horticulture Program, Volume 20, Issue 7.
- “U-Pick Best Management Practices During the COVID-19 Pandemic,” Laura McDermott, CCE-ENYCHP, Volume 20, Issue 8.
- “Important! State Guidance for Farms to Prevent/Respond to COVID-19,” Richard Stup, Cornell Agricultural Workforce Development, Volume 20, Issue 9.
- “Cornell Resources Are Available to Help You Develop a Farm Business Safety Plan: Required of Every Business for NY Forward Reopening Plan,” Richard Stup, Cornell Agricultural Workforce Development, Volume 20, Issue 9.

Outreach:

COVID-19 PPE Distribution

- Worked with CCE Wayne County Association ED Beth Claypoole to contact farmers and distribute face coverings and hand sanitizer. Distributed PPE at 3 different pickup location. Distributed more than 450 gallons of hand sanitizer, 2,200 2-oz. bottles of sanitizer, and 6000 cloth face masks to more than 70 farms.





Beth Claypoole, Mark Wiltberger, and Gary Orbaker hand out face coverings and sanitizer at Orbaker's fruit stand.

Projects:

- **NY Forward Business Safety Plan Support**

Worked on the NY Forward Business Safety Plan Task Force, a team of CCE specialists developing a guide for farmers to craft a NY Forward Business Safety Plan. The NY Forward Business Safety Plan is required for all NY businesses to operate safely during the COVID-19 crisis.

- **Publication:**

"NY Forward Business Safety Plan Support: Considerations and Examples," authored by the task force, uses guidance from the CDC and NYS Ag and Markets, plus best practices from Cornell, to provide examples for farms to craft a NY Forward plan tailored to their type of ag business. The NY Forward Business Safety Plan Support documents and videos are presented here:

<https://agworkforce.cals.cornell.edu/ny-forward-business-safety-plan/>

- Met virtually with Fruit Farm Business Summary participating farms during the month of April to follow-up on data collection. Despite the COVID-19 pandemic and the disallowing of farm visits, 12 farms participated in the Fruit Farm Business Summary and completed submission of all farm financial data.
- Investigated H-2A situation with COVID-19 by contacting growers and H-2A contracting agencies, and reported to CCE and to growers.
- Investigated housing and COVID-19 diagnostic testing for farm crews. Worked with Robert Batt, ED of CCE Orleans County and David Bell, Orleans County Public Health Emergency Preparedness coordinator. Participated in meetings with Beth Claypoole, ED of CCE Wayne County, Wayne County DOH, and Finger Lakes Community Health migrant health clinic.
- Wrote Premier Apple Coop forecast of 2020 apple crop – published July 1st in Fruit Notes Vol 20 Issue 11 – "Premier Apple Coop 2020 National Crop Estimate Lower than 2019 Production"

- Assessed crop condition and crop loss for perennial crops in New York State in report to USDA Risk Management Agency.
Publication: “2020 Perennial Crop Conditions Report – New York State July 1st, 2020” – delivered July 1st to USDA/RMA.

Funded Projects:

- Co-Director on Project: “Reducing Risk in Fruit and Veg Production through Improved On-Boarding of New Farm Employees”, USDA. \$29,631. Elizabeth Higgins, PI.

Communication:

A high volume of pertinent information for growers about the COVID-19 crisis was incoming constantly. Often the information required immediate action. The bi-weekly Fruit Notes newsletter was too infrequent for some of these announcements and articles. We bundled announcements into direct emails we are calling “*Email Blasts*”. We sent about 10 or so of these emails, as frequently as needed.

An example of one of these direct emails with bundled information from May 6 is as follows:

Lake Ontario Fruit Program

Important Announcements & Meetings

Contents

- EIDL Application Re-Opening for Ag Businesses!
- Monday May 11 – Lake Ontario Fruit program’s ‘Spring Pink Meeting’ via Zoom
- NYS Department of Agriculture and Markets Requesting Information to Connect Impacted Producers to Purchasing Opportunities
- Arriving H-2A Workers: Reconciling Isolation and Essential Status
- Cornell Hard Cider PWT Virtual Office Hours: Cider Apple Production
- Penn State Extension Town Hall-Style Webinar to Focus on H-2A Visa Ag Workers in Uncertain Times
- ECornell Webinar for Taproom or Brewpub Owners

Meetings:

At the outset of the COVID-19 crisis, there were many meetings and webinars. Meetings and webinars addressed how we needed to conduct business in CCE, the state of the crop and the industry during the crisis, updates on financial programs available for farmers, best practices and guidance for farms during COVID-19, project meetings to develop useful deliverables for farms, and mental health meetings for CCE employees.

Industry Meetings:

- Premier Apple Coop meetings – Weekly or Bi-weekly - state of 2020 crop and 2019 crop movement.
- Premier Apple Coop 2020 Crop Forecast Estimate – June 24th, in lieu of annual Premier Apple Forum.
- USDA/RMA – Listening Sessions for New Apple Crop Insurance policy
- Farm credit east – Fruit and vegetable outlook, June 25

Cornell Meetings

- Business Management Specialist meetings – weekly or bi-weekly

COVID-19 Meetings

- Cornell Meetings about COVID-19 – staff, University, CALS, CCE
- Meetings / Webinars on COVID-19 Financial relief programs
- U-Pick Webinar – Best Practices 4/30/2020
- The NY Forward Business Safety Plan Support webinars – attended
- Washington State Berries/Covid-19 webinar
- Pennsylvania – H-2A workers / housing /COVID-19
- NYS Ag and markets – guidance for farms
- CDC – guidance agricultural workers
- Food Safety Office Hours – Best Management Practices for COVID-19

Professional Development:

- Audio Visual Webinar – R.J. Anderson

Other Team Duties:

LOF Team meetings: Attended Monthly and Weekly team organizational meetings.

Weekly One-on-One Check-ins with Team Leader.

Stakeholder Contacts:

- Telephone calls: Approximately 50 phone calls/Zoom calls related to Fruit Farm Business Summary, H-2A status of workers, financial relief for COVID-19, business safety planning, face covering and sanitizer needs, questions about COVID-19 and best practices, and other farm business related inquiries.
- Texts: Approximately 7 text conversations
- Emails: 27 email conversations
- In-person Visits: Conversations with growers about business, crops, and COVID-19 response when picking up face coverings and sanitizer.

Quarterly Highlight for Production Economics and Business Management

Q & A Sessions for Managing Farms during COVID-19: Providing Guidance for Growers on Best Practices to Protect Themselves, Their Employees, and Their Customers During the COVID-19 Crisis

6) What happens if one of my crew members develops symptoms or tests positive for COVID-19?

(Legal isolation vs. legal quarantine vs. self-quarantine)

Symptom MONITORING above baseline, including body temperature

- If YES to new symptoms or temperature of 100.0 F, seek medical advice as to whether COVID-19 testing is advised
 - If test is advised, do not allow work until negative test result is obtained
 - If not advised, return to work when feeling better (as normal)
 - If test is positive, worker must be **isolated** (separate sleeping and bathroom facility)
 - Sick and isolated workers can only return to work after released from isolation (min. 10 days)
- ... continued on next page

Dr. David Bell, Public Health Emergency Preparedness Coordinator for Orleans and Genesee Counties, addresses a question about a worker testing positive for COVID-19 and quarantining.

Need/Opportunity:

April, May, and June 2020 proved to be the most extreme time of the Coronavirus pandemic in New York State.

As essential businesses, growers were in full Spring mode, conducting dormant pruning, planting new orchard blocks, and beginning spray regimes to control Spring diseases. Thinning would follow. H-2A crews had begun to arrive for early season work.

In the midst of the usual growing season activities, the COVID-19 crisis was in full swing in New York State. Non-essential businesses were not functioning, and most people were under a stay-at-home order except for essential activities such as grocery shopping.

Growers were suffering from an overabundance of COVID-19 information for guidance and best practices for conducting their businesses. In addition, the state of New York issued a requirement for all businesses to develop a NY Forward plan in order to run their businesses.

LOF Response:

In order to answer the many questions that were out there about running a farm business during COVID-19, I organized a series of Q&A sessions on Covid-19 response for farms. A Q&A was determined to be the best format, in order to cut straight to the most pressing issues growers were facing. The webinars conducted were:

- ***“Lunchtime Q & A Session - Managing Field Crews During COVID-19: What Actions Should Apple Growers Take?” - June 9th, 2020.***
 - This Q & A session featured Dr. David Bell, Public Health Emergency Coordinator for Orleans County, Rich Stup of Cornell Ag Workforce Development, Elizabeth Bihn of the Institute for Food

Safety at Cornell, and Mark Wiltberger of the Lake Ontario Fruit Program. Robert Batt, ED of CCE Orleans County, moderated the session.

- The session addressed the guidance for farms issued by New York State, and the role of the local health department working with farmers to respond to COVID-19.
- Dr. Bell addressed pressing questions about guidance regarding worker housing, daily employee screening, what happens when a worker tests positive, how quarantining and isolation works, and what assistance to expect from the local health department.
- Well attended at 62 attendees, with currently 97 views.
- Direct link: <https://youtu.be/KT9pmTMfiHg>

- ***“Q & A Session - Managing Fruit and Vegetable Farms During COVID-19: What Actions Should Farms Take?” - June 24th, 2020.***

- This Q & A session featured Dr. Richard Stup of Cornell Ag Workforce Development, Dr. Elizabeth Bihn of the Institute for Food Safety at Cornell, Dr. Anu Rangarajan of the Cornell Small Farms Program, and some of the CCE specialists who developed the NY Forward Business Safety Plan Support guides (Laura Biasillo, Dr. Elisabeth Hodgdon, Nathaniel Larney, Kevin Martin, Myron Thurston, and Mark Wiltberger). Craig Kahlke of the Lake Ontario Fruit Program moderated the session.
- The session addressed best practices for fruit and vegetable farms, including both production operations and retail operations such as farm markets, farm stands, pick-your-own, and CSA.
- A number of questions were from U-Pick operations who had just started opening their businesses to the public for June strawberry picking.
- Well attended at 85 attendees, with currently 59 views.
- Direct link: <https://youtu.be/PsS7lrMWsCc>