



**Cornell Cooperative Extension
Lake Ontario Fruit Program
Quarterly Report
July - September 2025**

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

*Monroe, Niagara, Orleans,
Oswego & Wayne*

Overview: The overabundance of rain in May and early June turned into an extremely dry summer for most of our five-county territory. From mid-June right through September, Niagara and Orleans counties were especially dry. There were more hit or miss rains for the remaining counties but most counties had significant acreage suffering drought conditions. This contributed to the small fruit size that was certainly apparent in our early and mid-season apple varieties. This was coupled with high heat events to produce a lot of internal ethylene in the fruit which in turn causes certain varieties of apples to drop prematurely. The bright side was that the apples were very sweet and firm. Thus varietal flavor this season should be good to excellent. Prices at this point in the fall are moderate with the prediction being possible decline in late fall due to a heavy Washington state crop. As summer turned towards fall, growers began harvesting early apple varieties about a week later than last year, which was a very early season. In addition, due to small fruit size and other factors, growers over predicted their crop estimates especially for the processing market. Other processing apple states had shortages so our processors in New York were paying very high prices to try to hunt down fruit that were in short supply. Those who have processing apples should benefit from the high prices. For the second consecutive September, we saw one of the finest months for harvest activities in memory. It was a very dry month with plenty of sun and more moderating temperatures. More to follow in our next quarterly report, as apple harvest typically extends into late October or early November.

Personnel: For the third consecutive year, we were fortunate to be able to re-hire Daniel Acquilano, our summer helper. Daniel once again split time with us and Dr. Yu Jiang's lab, starting in late May. Daniel is a smart young man who wants to pursue a career in agriculture, and he was once again an asset for both of our teams. As he went back to College in mid-August, we were worried about being shorthanded for harvest in some of our major research projects in Honeycrisp and Gala during September. In addition, we were without our IPM Specialist Janet van Zoeren for the month of September, who was out on medical leave for a serious health condition. We were very fortunate that the division of labor for harvest worked out well for us, as Mario, Craig, and Liz lucked out again, and were able to hire a temporary worker to help with harvest and maturity testing on several projects. Erik Norsen was a lifesaver for LOF during the key harvest crunch!

3rd Annual Western NY Fruit Growers Tour July 31st. – See Quarterly Highlight.

In addition to finalizing our summer tour plans, the team continued to be engaged in field work this quarter. Trapline checks and reporting by Janet and Liz continued. Applied research projects (mainly ARDP-funded) occupied a lot of Mario, Craig, Janet, Liz, Daniel, and Erik's time. Janet worked on projects that involved Pollinator Protection Program block comparison, mating disruption, and woolly apple aphid biocontrol. Our precision agriculture/digital ag work continued both through our 4 yr SCRI project and through a continuing ARDP grant (both T. Robinson PI). Robinson PostDoc Brian Lawrence coordinated several on-farm projects with Liz, Mario, and Daniel's help. Once again, we were able to work with several companies doing flower, fruitlet, and fruit density drone (Outfield Inc., England) or ATV-mounted scans (Vivid Technologies, Canada), pairing with a company providing separate maps (for the Outfield blossom scans -Aurea Imaging, The Netherlands) and Lagasse Machine & Fabrication (Lyons, NY), testing a variable rate sprayer for blossom thinning guided by the drone scan and blossom density maps. Scans at the fruitlet stage should allow more accurate precision chemical thinning, and scans of larger fruit closer to harvest are working towards better yield estimates. This work was featured on our summer tour. We are excited about the possibility of the continued improvement of these technologies and the hopeful adoption by our industry to increase their bottom line in a period of uncertainty with overproduction and low prices. Craig's NESARE Honeycrisp project was another high priority. Fruit were collected, tested, and stored for continued analysis. Bonnie

continued to inform industry of the latest in unionization, by distributing helpful fact sheets to our stakeholders. She also continued work on severed funded projects. These include final interviews of growers for her ARDP-funded “*A Study of Orchard Leasing Practices in New York State.*” She also worked on follow-up surveys and quarterly and final reporting for 2024 Extension Risk Management Education Competitive Grant Program titled “*Building Grant Literacy and Research Skills Among New York State Tree Fruit Growers*”.

Selected Publications by LOF Team	Periodical	Author(s)
<i>The Use of Cover Crops in the Summer for a Future Orchard.</i>	Fruit Notes, Volume 26, Issue 5.	Björkman, Aller, van Zoeren, and Miranda Sazo
<i>2025 Post-Emergent Herbicide Reminders.</i>	Fruit Notes, Volume 26, Issue 5.	Basedow & van Zoeren
<i>Update on European Cherry Fruit Fly.</i>	Fruit Notes, Volume 26, Issue 5.	van Zoeren & Wallis
<i>"Seed transmission of apple stem grooving virus and citrus concave gum-associated virus in apple".</i>	Accep. in Journal of Phytopathology on Aug 12. It was available online on Aug 15	A. Wunsch, M. Miranda Sazo, J. van Zoeren, K. Lamour, O. Hurtado, J. Foster and M. Fuchs
<i>"Impacts of viruses on horticultural and fruit traits of young apple trees in a high-density production system in New York".</i>	Accep. in Journal of Phytopathology on Sep 3. Now available online.	A. Wunsch, M. Miranda Sazo, J. van Zoeren, K. Lamour, O. Hurtado, J. Foster and M. Fuchs
<i>The Use of Reflective Materials and Other Technologies for Improving Fruit Color on High Value Apple Cultivars in WNY.</i>	Fruit Notes, Volume 26, Issue 6.	Miranda Sazo, Kahlke, and Robinson
<i>Harvest Date Prediction & The Use of Plant Growth Regulators Near Harvest.</i>	Fruit Notes, Volume 26, Issue 6.	Robinson, Miranda Sazo, and Kahlke
<i>Honeycrisp Sample Collection for Peel Sap is Next Week - Attention WNY Growers/Packers/Consultants.</i>	Fruit Notes, Volume 26, Issue 5.	Miranda Sazo & Kahlke
<i>Time to Collect Leaf Samples for Honeycrisp in WNY.</i>	Fruit Notes, Volume 26, Issue 5.	Miranda Sazo
<i>USDOL Suspends Enforcement of H-2A Final Rule.</i>	Fruit Notes, Volume 26, Issue 5.	Nelsen
<i>Union Fact Sheets for Farm Employees</i>	Fruit Notes, Volume 26, Issue 6 & email blast 8/4	Nelsen
<i>Dude, Where's My Tractor? Minimizing Risk of Farm Equipment Theft</i>	Fruit Notes, Volume 26, Issue 6.	Nelsen

Selected Presentations by LOF Team	Meeting:	Presenter:
<i>“Acidity & Sensory Analysis in Honeycrisp”</i>	2025 Cornell Storage Workshop August 19	Kahlke
Opened/led discussion at Nutrient Management and Digital Agriculture Stops.	3 rd Annual Western NY Fruit Growers Tour July 31 st	Sazo
Chaired educational program titled <i>“Pest Management”</i> . Introduced speakers and coordinated DEC credits.	3 rd Annual Western NY Fruit Growers Tour July 31 st	van Zoeren
During the lunch stop, introduced sponsors.	3 rd Annual Western NY Fruit Growers Tour July 31 st	Nelsen
Welcome, housekeeping and info for the day.	3 rd Annual Western NY Fruit Growers Tour July 31 st	Kahlke

Publications

	Editions:	Articles:
Fruit Notes	2	21
Email Blasts	17	N/A
Fruit Facts	8	N/A
Harvest Maturity Reports	6	N/A
Crunch Time Apple Growers Harvest Maturity Bulletins	2	N/A

Business Consultation

Specialist	Site Visits	Phone/Texts/Emails
Kahlke	6	~815
Miranda Sazo	12	~155
Nelsen	4	~40
van Zoeren	2	~60



To reduce orchard establishment costs, some Western New York (WNY) growers have begun producing *plant-in-place* trees in recent years. This approach involves planting a tree directly into its permanent orchard location rather than first growing it in an on-farm nursery and transplanting it later. For long-term success, WNY growers must pay careful attention to details—selecting and training the right apple cultivar on the appropriate rootstock in the right location from the very beginning.

Research

Activity/Proposal/Grant	Person(s)	Funded (Y/N) or Unfunded/ Preliminary Research (UPR)
<i>“Precision Orchard Management”- several Obj’s. – see the next 4 below</i>	Miranda Sazo, Kahlke, Tee (Robinson PI)	Yes-SCRI & ARDP
<i>“Precision Crop Load Management”</i>	Miranda Sazo, Kahlke, Tee, Lawrence, Acquilano (Robinson PI)	Yes-SCRI & ARDP
<i>“Improved Color on ‘Premier’ Honeycrisp”</i>	Kahlke, Tee, Miranda Sazo, Acquilano	Yes-ARDP
<i>“Precision Irrigation”</i>	Kahlke, Lawrence (Robinson PI)	Yes-ARDP
<i>“Return Bloom on Honeycrisp”</i>	Kahlke (Robinson PI)	Yes-ARDP
<i>“On-Farm Processing System (Rootstock) Trials”</i>	Miranda Sazo, Kahlke, Tee (Robinson PI)	Yes-Keurig Dr. Pepper & ARDP
<i>“Acidity of Honeycrisp – Key to Eating Quality and Competitiveness of Northeastern Apple Growers”</i>	Kahlke, Tee, Baker, Henning, Watkins (Kahlke PI)	Yes-NESARE
<i>“Pollinator Protection Program block comparison”</i>	van Zoeren, Wallis (PI), Tee	Yes
<i>“Mating Disruption”</i>	van Zoeren, Tee (Rivera PI)	Yes-ARDP
<i>“Long-term Defoliation Research Study”</i>	Van Zoeren, Wallis (PI)	Yes
<i>“Wooly Apple Aphid Pest & Biocontrol”</i>	van Zoeren & Tee (Rivera PI)	Yes – ARDP
<i>“Evaluating Fruit Finish in NY1”</i>	van Zoeren & Tee (Londo PI)	No
<i>“A Study of Orchard Leasing Practices in New York State”</i>	Nelsen	Yes- ARDP
<i>“Managing Legal and Human Risk Using Performance Management Systems on New York Fruit Farms”</i>	Nelsen	Yes- NERME
<i>“Building Grant Literacy and Research Skills Among New York State Tree Fruit Growers”</i>	Nelsen	Yes- NERME

Selected Professional Development and Training

Activity	Team Member(s)	Comments
Attended “NETFIPM” weekly conversations led by Anna Wallis (July; 1 total)	van Zoeren	Zoom
Attended “NE Berry” conversations led by Laura McDermott and Anya Osatuke (July; 1 total).	van Zoeren	Zoom

Attended “NECAFS Virtual Summer Check in” on July 16&17	Kahlke	Zoom
Attended “GFLRPC Comprehensive Climate Action Plan” meeting on July 22	Kahlke	Zoom
Seso Labor’s webinar entitled “Unlock the Secrets to Lower Worker’s Compensation Premiums” on Aug 20	Nelsen	Zoom
Attended “Morning Brew” conversations led by Peter Jentsch, Poma Tech (July-August; 6 total).	van Zoeren	Zoom
Attended Farm Business Management meeting on Aug 19	Nelsen	Zoom
Attended “2025 Cornell Storage Workshop” on August 19	Kahlke	Geneva
Attended Cornell Ag Workforce Development’s webinar Common Violations of Employment Law on Farms on 7/9/2025.	Nelsen	Zoom
Attended Cornell Ag Workforce Development’s webinar on Farm Employer Overtime Tax Credit Advance Overview on 7/25/2025.	Nelsen	Zoom



A closeup of a 3-row Smart Sprayer and attendees of the 3rd Annual Western NY Fruit Growers Tour July 31 at the Donald DeMaree Fruit Farm in Williamson, NY.

Fruit Quality Management – Craig J. Kahlke

Educational Programs/Presentations

- 3rd Annual Western NY Fruit Growers Tour, Co-hosted with Lake Ontario Ag Consulting, Inc.
 - July 31 in Wayne County
 - Continued to lead planning in the form of email communications and tour stops final tour walk-through on July 30.
 - Worked closely with both teams to finalize the program.
 - Worked closely with Lindsay and Zayda to finalize the sponsor list.
 - For more details, **see our Quarterly Highlight.**
- Harvest Maturity Testing
 - Starting in late-August, and continuing past the end of the quarter, performed the harvest maturity testing and reporting on apples and pears
 - With Liz, sampled orchards and picked up grower and crop consultant samples on Mondays, and tested them in the maturity lab (with Erik) at Orleans County CCE
 - With Erik, tested Wayne County samples (growers and crop consultants collected) at K.M. Davies on Tuesdays.
 - Sent data to industry reps on Tuesday evenings, had conference call (Zoom) on Wednesday mornings
 - Put out maturity reports later Wednesday mornings/early afternoon
 - Put out 6 Harvest Maturity Reports in the quarter
 - Put out 2 Crunch Time Apple Growers Harvest Maturity Bulletins in the quarter (separate reports for Crunch Time Apple Growers, the producers of SnapDragon™ and RubyFrost™)
- “2nd Annual Apple Socials”
 - This was the idea of LOF Advisory Committee chair Mike Keller, industry Rep Chelsea Gowan, and Wayne County grower Rob Verbridge.
 - This was designed to increase visibility of our specialists. There were brief presentations by each specialist on the work they do.
 - This was followed by social time with food and beverages.
 - The events were held July 17 at VanAcker Farms in Wayne County, and July 24 at Yates Town Park in Orleans County
 - Attendance was strong at the Wayne event and lighter at Orleans (this week coincided with Orleans 4-H County Fair)
- “Controlling Listeria in Apple Packinghouses Workshop” August 15
 - Craig organized and hosted the workshop.
 - This was the 3rd such workshop held in the last 9 years.
 - Experts from Cornell gave presentations on the topic at the Wallington Fire Hall in the AM
 - Following lunch, all participants attended breakout hands on sessions at a packinghouse (Wayne County Fruit Sales)
 - Most apple packinghouses in Western NY were represented
 - Evaluations indicated it was worthwhile
- “2025 Cornell Storage Workshop” August 19

- For the 2nd time in 3 years, Chris Watkins (Cornell) asked our team to find a meeting location, and set up registration and coordinate the workshop
 - Liz and Zayda handled registration
 - Craig secured the meeting location and contracts, chaired a session, and gave a presentation “*Acidity & Sensory Analysis in Honeycrisp*”
- Over 65 attendees were there for the daylong workshop held at 41 Lakefront Hotel in Geneva
- The up to date apple storage research was greatly valued by the attendees.

Publications

Fruit Notes

- Articles Written: *Fruit Notes* newsletter
 - *Registration Open for our 3rd Annual Western NY Fruit Growers Tour*– In *Fruit Notes* Volume 25, Issue 5
 - *Subscribe Now for Harvest Maturity Reports!* – In *Fruit Notes* Volume 25, Issue 6.
 - *Harvest Date Prediction & The Use of Plant Growth Regulators Near Harvest*- Co-authored with Terence Robinson & Mario Miranda Sazo– In *Fruit Notes* Volume 25, Issue 6.
- Edited 2 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.
- Sent out 16 email blasts in the quarter

Applied Research

- Projects “*Precision Orchard Management for Apple*” (SCRI, Robinson, PI) and “*Precision Management*” (ARDP, Robinson, PI)
 - PACMAN work
 - No tasks this quarter- final data collection was done by Brian Lawrence
 - “*Color Improvement on ‘Premier Honeycrisp’*”
 - Secured a site from a grower block in Niagara County.
 - Flagged trees in late July.
 - Deployed reflective fabric and plots in early August and put out chemical sprays in early and mid-August
 - harvested with Liz, Mario, and Erik on August 28th and September 5th
 - performed maturity testing in lab and put fruit in storage for later color evaluation at Cornell Agritech
 - “*Return Bloom on Honeycrisp*”
 - continued spraying LOF’s treatments that were started in June.
 - Coordinated with farm manager to put out their sets of treatments.
 - Harvested fruit with Liz on September 10, put fruit in storage for later color evaluation at Cornell Agritech
 - “*Precision Irrigation*”
 - Continued weekly fruit diameter measurements at the site in Niagara County.
 - Brian harvested in mid-September and took samples back to Geneva for analysis.

- NESARE Funded “*Acidity of Honeycrisp – Key to Eating Quality and Competitiveness of Northeastern Apple Growers*” (Kahlke PI)
 - This is year 2 of this 2 year grant
 - Collected fruit for the study in early to mid-September with the help of Liz
 - took sub samples to the lab for maturity testing
 - In addition to normal maturity testing tested titratable acidity levels using pocket Atago brix/acid tester
 - the rest of the samples stayed in a commercial storage of our cooperators, Lake Ontario Fruit, Inc.
 - Will take acid measurements at 30 day intervals in October and November.
 - In the process of organizing a sensory analysis tasting panel on campus with Dr. Robin Dando’s lab in December

Professional Development

- Attended (Zoom) both sessions of the NECAFS Summer Check In on July 16 & 17
 - Latest food safety updates and winter programming discussion
- Attended (Zoom) the GFLRPC Comprehensive Climate Action Plan meeting on July 22
 - Heard recommendations for greenhouse gas reduction in agriculture in our region
- Attended Irrigation “Orchard Walk” on August 5th hosted by Niagara County Soil & Water
 - Featured the FloraPulse technology (at host farm Bittner-Singer) and irrigation research I’m involved in with Robinson & Lawrence

Team and Other Duties

Honeycrisp Bitter Pit Prediction Model

- Collected peel sap samples from packinghouses and growers in Niagara & Orleans Counties on July 11, delivered to Ithaca for processing

Temp Harvest Field Technician Hiring

- Worked with HR (Janet Camilli) to post the position
- Worked with Mario to set up candidate interviews (Zoom) with 3 candidates, including second interviews with 2 candidates on July 9, 14, and August 4.
- Offered the position to Erik Norsen and he began work with us on August 25.

Team Leader Administrative Duties

- Coordinated with Bonnie, and set up and ran a Meeting to Discuss “an Alternative to the Fruit Farm Business Summary Moving Forward” Zoom meeting with members of Bonnie’s original mentoring committee and other growers she’s worked closely with
- Approved invoices and vouchers as needed.
- Reviewed budget and monthly financials.
 - Including a budget discussion meeting with Peter and Jen on September 24 (Zoom)
- Approved timesheets/vacation/sick leave hours for team members as needed.
- Disseminated pertinent info to rest of team as needed from group and other email lists.

- Submitted April-June 2025 quarterly report.
- Mileage Reporting for funded grants and for fleet website.

Stakeholder Contacts

- 6 site visits to assist growers (3 Niagara, 2 Orleans, 1 Wayne).
- Assisted stakeholders via texts, phone, and email (~815).

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

- Wrote a letter of support for PI Dr. Don Stoekel on a large food safety grant, a 2026 USDA-NIFA-Agriculture and Food Research Initiative (AFRI) under Priority Area 5d ***“Engineering for Precision Crop and Water Management”*** with creation of a Decision Support Tool (DST) for management of agricultural water at specialty crop/ produce farms. The DST we envision creating would provide a significant aid to farms doing the agricultural water assessment required under the 2024 revised requirements of the FSMA Produce Safety Rule. The project title (working) is ***“A geospatial decision support tool for irrigation water quality and use management to prevent the spread of pathogens to produce”***
 - If funded, I’d be a consultant on the project.



Preharvest drop on ‘Premier Honeycrisp’ apples at our *“Color Improvement on ‘Premier Honeycrisp’”* research site in Niagara County on August 28th. We theorize tree stress caused by the drought conditions of the season combined with high temperatures led to the premature drop. The good news is that some of the products used to enhance color reduced the incidence of preharvest drop.

Cultural Practices – Mario Miranda Sazo

Educational Programs/Presentations

3rd Annual Western NY Fruit Growers Tour July 31

- Planned, organized, delivered two orchard stops during the 2025 WNY fruit tour this Q₃ (July 31)
 - **Stop 1: Nutrient management stop** (hosted by Cherry Lawn Farm, Alton, Wayne):
 - In this stop we presented a summary of the current nutrient management recommendations for Honeycrisp developed in the last 10-15 years of research trials.
 - @ 150-180 participants.
 - **Stop 2: Digital agriculture stop** (hosted by DeMarree Fruit Farms, Williamson, Wayne):
 - In this stop we gave an update about the 2025 on-farm research done with the use of vision systems and variable rate sprayers.
 - @ 120-150 participants

Publications

Fruit Notes CCE LOF Fruit Notes newsletter: Wrote/modified/summarized/requested articles including:

- “Honeycrisp sample collection for peel sap is next week – attention WNY growers/packers/consultants” (M. Miranda Sazo and Craig Kahlke). page 3, Vol. 26, Issue 5, July 2, 2025.
- “Time to collect leaf samples for Honeycrisp in WNY” (M. Miranda Sazo). Pages 3-4, Vol. 26, Issue 5, July 2, 2025.
- “The use of cover crops in the summer for a future orchard” (T. Bjorman, D. Aller, J. van Zoeren, and M. Miranda Sazo). Pages 4-5, Vol. 26, Issue 5, July 2, 2025.
- “Harvest date prediction & the use of plant growth regulators near harvest” (T. Robinson, M. Miranda Sazo, and C. Kahlke), pages 8-9, Vol. 26, Issue 6, August 14, 2025.
- “The use of reflective materials and other technologies for improving fruit color on high value apple cultivars in WNY” (M. Miranda Sazo, C. Kahlke, and T. Robinson), pages 10-11, Vol. 26, Issue 6, August 14, 2025.

CCE LOF Fruit Facts:

- Provided summer recommendations for hand thinning, irrigation, nursery, and tree training, etc.

Peer-reviewed Publication(s):

- “Seed transmission of apple stem grooving virus and citrus concave gum-associated virus in apple”. (A. Wunsch, M. Miranda Sazo, J. van Zoeren, K. Lamour, O. Hurtado, J. Foster and M. Fuchs) was accepted for publication in the Journal of Phytopathology on August 12, 2025. It was available online on August 15:

Here is the link: <https://apsjournals.apsnet.org/doi/10.1094/PHYTO-06-25-0208-SC>

- *“Impacts of viruses on horticultural and fruit traits of young apple trees in a high-density production system in New York”*. (A. Wunsch, M. Miranda Sazo, J. van Zoeren, K. Lamour, O. Hurtado, J. Foster and M. Fuchs). This article was published in the Journal of Plant Pathology on September 3, 2025, and is available online here:

<https://link.springer.com/article/10.1007/s42161-025-02006-w>

Applied Research Projects/Collaborations

On-farm Rootstock/Training Systems (Motts/Robinson and LOF team)

- Some hand thinning and summer pruning was conducted for both sites (Verbridge and Breslawski) this Q₃
- Trials are expected to be harvested the first or second week of October.

New SCRI Temperature extremes long-term project (Lee Kalcsits)

- This project was started a year ago on Sept. 1, 2024.
- We conducted a preliminary analysis (via several zooms) of a nationwide survey conducted in Dec. 2024 and during the winter months of 2025.
- This quarter we assembled the research and extension team interested in writing the extension manuscript.

Statewide ‘Honeycrisp’ bitter pit project -ARDP funds (L. Cheng)

- The long-term Honeycrisp research project and extension activities were finished this year.
- We had a small group of growers who submitted approx. 103 samples for peel sap.
- Growers got results/interpretation/bitter pit recommendations by LOF.
- We encouraged growers to conduct bitter pit passive evaluations this Q3 (via CCE LOF email blasts sent by Craig).

WNY effort to establish relationships of peel sap results and fruit quality after long-term CA storage of Gala (ARDP, led by L. Cheng)

- We are working with four collaborators for this effort: (1) Lake Ontario Fruit in Orleans, (2) Cherry Lawn Fruit Farm in Wayne, (3) VanDeWalle Fruit Farm in Wayne, and (4) Fowler Brothers in Wayne. The project was started on August 2024.
- This Q3 collaborator Tyler Baker (Lake Ontario Fruit Company) collected and peeled fruit from 15 Gala sites in Orleans County on August 23. Frozen peels were picked up by Liz on September 2.
- We (Erik Norsen, a 2025 LOF summer helper and I) collected Gala fruit from 29 sites for peel sap in Wayne County on September 2.
- A total of 44 samples (15 frozen peels and 29 fruit samples) were delivered to Kaspar Kuehn who transported all samples to a lab for further processing in Ithaca.
- Tyler collected a 100-fruit sample for all the 15 Orleans sites for long-term CA storage on Sept. 5 and 6.
- Liz picked up Tyler’s samples on Sept. 9 and gave samples to Mario the same day at a convenient location in Wayne (Morgan Farms in Marion). Tyler’s samples were stored in room 111 at the raw product building at Cornell Agritech on Sept. 9.
- Erik, Kaspar, and Mario sampled 29 sites in Wayne and got the 100-fruit sample for long term CA storage on Sept. 10.

- All samples for long-term CA storage were transported to Ithaca on Sept. 10 by Kaspar and by Mario on Sept. 11.
- Maturity evaluations were conducted by Erik, Kaspar, Mario, and Chris Watkins in Ithaca on Sept. 11.
- Gala fruit samples for long-term CA storage will be evaluated around June 2026.

CALS Moonshot project on soil health – CALS funds awarded to Deborah Aller

- Leaf samples from the DeMarree and Lamont sites were submitted to an analytical lab (Joseph Amsili, Bradfield hall) in Ithaca on Sept. 11.
- 1.5k for Liz's time and mileage were submitted by the end of Sept.

Long-term Nitrogen study on 'Gala' and "SnapDragon" with Wayne County fruit grower collaborator Ted Furber (Cherry Lawn Farm, Alton) – ARDP funds (L. Cheng)

- Collected and peeled Gala fruit samples in Geneva on Sept. 4.
- Collected a 100-fruit sample for each of the Gala research plots on Sept. 10.
- For the SnapDragon trial, we had to collect the same day the fruit sample for peel sap, for long-term CA storage, and for maturity on September 23.

Fruit color experiment with PGRs, reflective fabric on Premier Honeycrisp – (ARDP funds, Robinson)

- I helped Craig with the reflective fabric project in Niagara three times this Q3.
- I helped to install fabric on August 5.
- Sampled premier fruit on August 28 and Sept. 5.

Coloring experiment of medium-size shaded Gala fruit with Jasmonic acid (SCRI funded, Lailiang Cheng)

- This Q3 Lailiang asked me if I could help him to find about 300 shaded Gala fruits for a coloring experiment with jasmonic acid. He used to get them from Lansing Orchards, but those large Gala trees were removed in the winter of 2025. He was particularly interested to sample any mature, large size Gala trees on a vigorous rootstock in Western NY.
- A first attempt for fruit sampling was conducted at Apple Shed with grower collaborator Gary Wells, Fairfield, Wayne County on Monday Sept. 15. Unfortunately, the shaded fruits we got from the first sampling were very small for the experiment in Ithaca.
- Therefore, a second sampling was needed and conducted with medium-size Gala fruit from grower collaborator Caleb Peters, Williamson, Wayne. Fortunately, this sampling of shaded fruit of medium-fruit size was the optimal for the coloring experiment conducted by Post Doctoral researcher Mengxia Zhang.

SCRI PCLM (SCRI's funds, Robinson)

- This Q3 we continued working with a large on-farm research and demo trial that was set up with grower cooperator Kristen DeMarree of DeMarree Fruit Farms, Williamson, Wayne County. The objectives were to test, validate, and ground-truth several digital technologies, variable rate spraying systems, and the model of fruit growth.

- Drone flights, variable rate spraying, and most of the CCE LOF field evaluations were conducted from May to June, 2025 (Q2). Final fruit counts per tree before commercial hand thinning were evaluated on July 7.
- The Ag-tech lessons learned (good, bad, and the ugly things about the current adoption levels of digital technologies and their potential applications) were shared during the 2025 WNY fruit summer tour conducted on July 31, 2025.
- At this digital agriculture stop hosted by the DeMarree we had close to 180-200 participants.

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

- Submitted a package of documents (conflict of interest, biosketch, current & pending support, personal data / project site location, letter of commitment, scope of work, facilities & other resources) for a SCRI project titled '*Integrated Horticultural and Robotic Solutions for Labor Intensive Orchard Operations*' led by new Cornell Professor Manoj Karkee.
- The following institutions are also part of this application: Washington State University, Oregon State University, FF Robotics, Carnegie Mellon University, Stanford University, Pennsylvania State University, Michigan State University, and Washington Fruit.

Proposal was submitted on Sept. 26

Team and Other Duties

- Attended Zoom meetings as needed for the planning of:
 - 2025 WNY tour and other CCE LOF program activities as needed.
 - SCRI SPARC project
 - Interviewed candidates for LOF temporary position
- Attended fruit and soil health PWT tour in Ithaca on July 11
- Attended CCE LOF apple socials on July 17 and 24
- Attended dry-run 2025 WNY fruit tour with the team in the am and with Terence in the pm on July 30
- Helped organize, hosted two stops, and attended WNY summer fruit tour this Q3
- Continued developing a framework for a statewide CCE in the Spanish language initiative, PWT, or working team (in close collaboration with Raul Lemus Garza and Alejandro Calixto).
- Visited orchards, planned, and coordinated with Mary 'Bess' Lewis the Hispanic fall celebration on Sept 19
- Submitted Cornell docs for Manoj Karkee's SCRI proposal
- Reported fleet mileage as needed during this quarter, changed oil, tires, etc.
- Authored/submitted three articles to LOF newsletter editor.
- Submitted Q₂ and team highlight (April-June 2025, quarterly report)

Professional Development

- Attended 2025 fruit & soil health PWT tour – July 11
- Attended 2025 WNY fruit tour – July 31

Stakeholder Contacts

- Assisted 12 growers/farm employees (6 Wayne, 1 Niagara, 4 Orleans, and 1 Monroe) via farm visits, 50-60 emails, 40 phone communications, 60 texts (pics, videos, voice messages, etc.).

Business Management – Bonalyn (Bonnie) Nelsen

Educational Programs/Presentations

3rd Annual Western NY Fruit Growers Tour July 31

- Helped planned & organize tour
- Introduced sponsors at the lunch stop

Publications

- “USDOL Suspends Enforcement of H-2A Final Rule.” Article published in Fruit Notes (vol.25, Issue 5) on 7/2/2025.
- “Union Fact Sheets for Farm Employees” in English and Spanish. Distributed in email blast on 8/4/2025 and in Fruit Notes (vol. 25, Issue 6) on 8/14/2025.
- “Dude, Where’s My Tractor? Minimizing Risk of Farm Equipment Theft.” Article published in Fruit Notes (vol. 25, Issue 6) on 8/14/2025.

Applied Research Projects/Collaborations/Grants

- Received 2025 ARDP grant in the approximate sum of \$9.5K for a study entitled “A Study of Orchard Leasing Practices in New York State.” The grant proposal was submitted on December 24, 2024, and granted in February 2025. Interviews (in-person surveys) with lessors (orchard owners) and lessees (orchard renters) began in March 2025. Fourteen interviews were completed and transcribed between April 2025-June 2025. An additional three interviews were conducted in July 2025.
- Received 2025 NERME grant proposal entitled “Managing Legal and Human Risk Using Performance Management Systems on New York Fruit Farms” worth \$40.5K. Between June 2025-September 2025, templates, sample templates (completed templates to be used as exemplars) for the educational program were obtained and modified. An example of a completed employee handbook template is currently under review by staff at Cornell University’s Agricultural Workforce Development Center. Additional materials and slides for the program are being prepared and workshop sessions will commence in December 2025.
- Worked on follow-up surveys and quarterly and final reporting for 2024 Extension Risk Management Education Competitive Grant Program titled “Building Grant Literacy and Research Skills Among New York State Tree Fruit Growers”. The final summary report for the grant-funded program will be filed on October 30, 2025.

Letters of Support

Produced a Letter of Support for a fruit farm in Orleans County, NY on 8/18/2025

Team and Other Duties

- Attended LOFP team Apple Social event at Van Acker Farm in Williamson, NY on July 17, 2025.
- Attended Motts grower meeting on July 24, 2025.
- Attended LOFP team Apple Social event in Orleans County, NY on July 24, 2025.
- Assisted with LOFP Summer Tour in Wayne County, NY on July 30-31, 2025.

Professional Development

- Attended meeting to Discuss “an Alternative to the Fruit Farm Business Summary Moving Forward” Zoom meeting with members of my original mentoring committee and other growers I’ve worked closely with
- Attended Seso Labor’s webinar entitled “Unlock the Secrets to Lower Worker’s Compensation Premiums” on 8/20/2025.
- Attended Farm Business Management meeting on 8/19/2025.
- Attended Ag Human Resource Quarterly meeting on 7/9/2025.
- Attended Cornell Ag Workforce Development’s webinar Common Violations of Employment Law on Farms on 7/9/2025.
- Attended Cornell Ag Workforce Development’s webinar on Farm Employer Overtime Tax Credit Advance Overview on 7/25/2025.
- Attended Seso Labor’s webinar entitled “Staggered Start Dates Are Back: What the DOL’s Latest H-2A Policy Update Means for Farm Employers” on 8/29/2025.

Stakeholder Contacts

- Emails, Text, and Phone Calls: 38
- On-farm grower/stakeholder visits:
 - 1 Monroe
 - 2 Wayne
 - 1 Orleans



A drone shot of the lunch stop at B. Foreman Park in Pultneyville, NY at the 3rd Annual Western NY Fruit Growers Tour on July 31. Lake Ontario is in the bottom right corner of the picture. The view is looking southeast. Apple orchards are visible beyond the park.

Integrated Pest Management – Janet van Zoeren

Publications

Fruit Facts Issues Written:

- 9 issues

Fruit Notes Articles Written:

- Björkman, T, Aller, D, van Zoeren, J and M Miranda Sazo. *The Use of Cover Crops in the Summer for a Future Orchard*. Fruit Notes, Volume 26, Issue 5. P 4-5.
- Basedow, M and J van Zoeren. *2025 Post-Emergent Herbicide Reminders*. Fruit Notes, Volume 26, Issue 5. P 5-7.
- Wallis, A, van Zoeren, J, Stansell, A and H Kase. *Spotted Wing Drosophila – 2025 Update on Monitoring and Management*. Fruit Notes, Volume 26, Issue 5. P 7-9.
- van Zoeren, J and A Wallis. *Update on European Cherry Fruit Fly*. Fruit Notes, Volume 26, Issue 5. P 11-12.

Applied Research Projects/Collaborations

- Project “*Pollinator Protection Program block comparison*” (PI-Anna Wallis)
 - Conducted pest surveys to compare blocks in the “pollinator protection program” vs blocks not in the program (Wayne county – Aug 4 and 6)
- ARDP funded Project “*Statewide Orchard Support*” (PI-Wallis)
 - In collaboration with Liz Tee, we conducted weekly monitoring network trap checks (Orleans, Niagara and Wayne counties – July-Aug)
 - Filmed IPM videos shorts in Geneva, which will be available online via the Cornell IPM website this winter (July 10)
- ARDP funded Project “*Mating Disruption*” (PI-Rivera)
 - Planned the logistics for harvest-timing damage evaluations
 - Helped to conduct the harvest-timing damage evaluation on three farms (Orleans and Wayne counties – Aug 22, 25 and 27)
- ARDP funded Project “*Woolly Apple Aphid Biocontrol*” (PI-Antolez)
 - In collaboration with Liz Tee, we conducted weekly scouting for WAA presence and abundance, as well as collecting aphids to count aphid colony size and to appraise for parasitoid presence and abundance (Wayne county – July-Aug)
- unfunded project evaluating fruit finish throughout the season (PI-Londo)
 - In collaboration with Liz Tee, we collected fruitlets weekly to provide data regarding when fruit finish issues materialize, comparing three different cultivars of apples throughout the season (Orleans county – July-Aug)

Team and Other Duties

- Served as Fruit Program Working Team Co-chair.
- Helped to organize and coordinate 3rd Annual WNY Fruit Tour; served as tour stop host for pest management sessions (July 31, Wayne county).
- Attended team meetings.

Professional Development

- Attended “NETFIPM” weekly conversations led by Anna Wallis (July; 1 total).
- Attended “NE Berry” conversations led by Laura McDermott and Anya Osatuke (July; 1 total).
- Attended “Morning Brew” conversations led by Peter Jentsch, Poma Tech (July-Aug; 6 total).

Stakeholder Contacts

- Made 2 site visits to assist growers (1 Orleans, 1 Wayne; 1 new contact).
- Assisted stakeholders via texts, phone, and email (60).



The CCE Lake Ontario Fruit team takes a photo after lunch at the 3rd Annual Western NY Fruit Growers Tour on July 31 at B. Foreman Park in Pultneyville, NY. Front row: IPM Specialist Janet van Zoeren. Second row, left to right: Business Management Specialist Dr. Bonnie Nelsen, Program Aide Liz Tee, and Cultural Practices Specialist Mario Miranda Sazo. Back row, left to right: Administrative Assistant Zayda Moyle, Fruit Quality Management Specialist & Team Leader Craig Kahlke, and Summer Field & Lab Technician Daniel Acquilano.