

Cornell Cooperative Extension Lake Ontario Fruit Program Quarterly Report July - September 2024

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

Monroe, Niagara, Orleans, Oswego & Wayne

Overview: The early start to the season in the form of warmer than average temperatures and the wetter spring weather continued into the heart of summer, with growing degree days well above normal with above normal precipitation for many. Unfortunately, there was a major hailstorm that significantly affected apple orchards in Wayne, Orleans and Monroe counties on August 11. Many of growers that had crop insurance "zeroed out" their orchards due to the severe damage that approached 100%. Some of the hail was so jagged and intense that fruit were rotting on the trees just weeks after the storm. Many loads of fruit got rejected for processing at the Mott's and other processing facilities if the fruit showed any hint of the possibility of rot in storage. As summer turned towards fall, growers began harvesting early apple varieties a full 7 to 10 days ahead of last year. Craig's maturity testing indicated this was true for just about every variety in every grower block with mature trees and good crop loads. As we rolled into 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. We already had plenty of moisture earlier to give us the fruit size and the orchards drying out made for efficient harvest and very few hours lost due to inclement weather. Reports of early and mid-season harvest are of good volume (despite the production taken out by hail), large fruit size, good yields, and excellent flavor. We hope that due to other production areas not producing bumper crops this season, that prices will start out better this fall marketing season and continue. More to follow in our next quarterly report.

<u>Personnel:</u> We were fortunate to be able to re-hire Daniel Acquilano, our summer help from last year. Daniel once again split time with us and Dr. Yu Jiang's lab, and since he was finishing his first year as a freshman in college, he was able to start a month earlier with us, 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. Through a referral by CCE-CVP specialist Elizabeth Buck, we were able to hire a temp to help Mario and Craig with harvest on several projects. Destiney Schultz was a lifesaver for LOF during these key harvests! I plan on touching base with CVP team leader Julie Kikkert earlier next year to see about hiring any summer help that finish up with them around Labor Day that are still looking for work in September and possibly into October.

2nd Annual Western NY Fruit Growers Tour August 13th. – See Quarterly Highlight.



A load of 'Honeycrisp' come into a storage in Orleans County.



Mike Keller of Valent USA addresses apple growers and industry at the Apple Social in Wayne County on July 31.

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, and Daniel's time. Our precision agriculture/digital ag work continued both through our 4 yr SCRI project and through a continuing ARDP grant (both T. Robinson PI). Mario coordinated several on-farm projects with Liz and Craig's help, mainly directed by Terence's oversight and ground-truthing work by his Postdoc Brian Lawrence and Daniel. 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. Honeycrisp projects were another high priority. Due to GDD's tracking well above normal all growing season, sample collection for the Honeycrisp peel sap test for bitter pit prediction took place prior to the 4th of July, the earliest we've ever collected samples. In late August, Honeycrisp sample collection took place for the passive bitter pit prediction model. In September, evaluations of the passive model were carried out. In addition, fruit to validate the models were collected at harvest and stored at 38F until evaluation before Christmas. For the fourth consecutive year, Janet conducted on-farm herbicide trials. Bonnie completed her first Fruit Farm Business Summary and delivered individual farm "scorecards" and benchmark summary reports out to all participants. She also continued to author articles that especially highlighted what growers need to do in the face of the possibility of unionization of their farms, which has happened to several large fruit farms in our region already. She worked closely with Dr. Rich Stup from Cornell Ag Workforce Development to get out information growers on how to legally communicate with their employees. She set up a webinar on this topic for October. Bonnie also worked on her risk management grant project (USDA NERME) helping growers find grant money that they would most likely be unaware of or would have barriers to applying. She also continued to meet new stakeholders via farm visits, and assisted the rest of the team with harvest of research plots and other field work on several occasions.

| | Editions: | Articles: |
|--|-----------|-----------|
| Fruit Notes | 2 | 13 |
| Email Blasts | 24 | N/A |
| Fruit Facts | 7 | N/A |
| Harvest Maturity Reports | 7 | N/A |
| Crunch Time Apple Growers Harvest Maturity Bulletins | 3 | N/A |



Hail-damaged fruit in Orleans County await pickup for delivery to processers.

| Selected Publications by LOF Team | Periodical | Author |
|--|-----------------------------------|---------------------------|
| "2 nd Annual Western NY Fruit Growers Tour August 13 th Co-Sponsored by the Cornell Cooperative Extension Lake Ontario Fruit Program & Lake Ontario Ag Consulting LLC" | Fruit Notes, Vol. 24, Issue 9 | Kahlke |
| "Announcing the 9th CCE-LOF Hispanic Summer Fruit Tour to be Hosted by HH Dobbins Farm on Saturday August 17" | Fruit Notes, Vol. 24, Issue 9 | Miranda Sazo & van Zoeren |
| "Virtual Orchard Meetup Series Recordings Now Available" | Fruit Notes, Vol. 24, Issue 9 | Tee & Miranda Sazo |
| "Update on New York Farm Labor Organizing" | Fruit Notes, Vol. 24, Issue 10 | Nelsen |

| Selected Presentations by LOF Team | Meeting: | Presenter: |
|---|---|------------------------------|
| Chaired educational program entitled <i>"Managing Change at Toussaint Farms"</i> The program described farm leasing, multi- generation farm management, farm diversification with tree fruit and field crop cultivation, transitioning Hispanic Farm Manager from Ledge Rock into Toussaint Farms management team, and managing multiple farms efficiently. | 2 nd Annual Western NY Fruit Growers Tour August 13 th | Nelsen |
| Chaired educational program titled "Establishing, Growing, and Managing a Very Narrow Fruiting Wall in a Super Organized Apple Orchard" at Zingler Farms. Tour stop topics were introduced and discussed by Mario and in close collaboration with Jimmy and Mike Zingler. | 2 nd Annual Western NY Fruit Growers Tour August 13 th | Sazo |
| Chaired educational program titled <i>"Pest Management"</i> . Introduced speakers and coordinated DEC credits. | 2 nd Annual Western NY Fruit Growers Tour August 13 th | van Zoeren |
| During the lunch stop, introduced sponsors and thanked host, Bernie Heberle at Circle R Farms. | 2 nd Annual Western NY Fruit Growers Tour August 13 th | Kahlke |
| Meeting organizing, multiple presentations | Hispanic Summer Tour, Lyndonville, Aug 17 | Miranda Sazo & van Zoeren |







Business Consultation

| Specialist | Site Visits | Phone/Texts/Emails |
|--------------|-------------|--------------------|
| Kahlke | 17 | ~390 |
| Miranda Sazo | 15 | ~155 |
| Nelsen | 11 | ~55 |
| van Zoeren | 19 | ~100 |



<u>Research</u>

| Activity/Proposal/Grant | Person(s) | Funded (Y/N) or Unfunded/ Preliminary Research (UPR) | |
|---|---|--|--|
| "Precision Orchard Management"- several Obj's. – see the next 4 below | Miranda Sazo, Kahlke, Tee (Robinson PI) | Yes-SCRI & ARDP | |
| "Precision Crop Load Management" | Miranda Sazo, Kahlke, Tee, Lawrence, Acquilano (Robinson PI) | Yes-SCRI & ARDP | |
| "Improved Color on 'Premier' Honeycrisp" | Kahlke, Tee, Miranda Sazo, Acquilano | Yes-ARDP | |
| "Precision Irrigation" | Kahlke, Lawrence (Robinson PI) | Yes-ARDP | |
| "Return Bloom on Fuji" | Kahlke (Robinson PI) | Yes-ARDP | |
| "On-Farm Processing System (Rootstock) Trials" | Miranda Sazo, Kahlke, Tee (Robinson PI) | Yes-Keurig Dr. Pepper & ARDP | |
| A Statewide Effort to Manage Crop Load, Nutrient Status and Bitter Pit of Honeycrisp | Miranda Sazo, Kahlke, Tee, Acquilano, Schultz | No | |
| Paired soil sampling 'comparison' of several Honeycrisp blocks in WNY | van Zoeren & Tee (Aller PI) | UPR | |
| "Acidity of Honeycrisp – Key to Eating Quality and Competitiveness of Northeastern Apple Growers" | Kahlke, Tee, Schultz, Baker, Henning, Watkins (Kahlke PI) | Yes-NESARE | |
| Optimizing Herbicide Strategies for Weed Control | van Zoeren, Basedow (Co-PIs), Tee | Yes-ARDP | |
| Mating Disruption | van Zoeren, Tee (Rivera PI) | Yes-ARDP | |
| "Building Grant Literacy and Research Skills Among New York State Tree Fruit Growers". | Nelsen & Higgins (Nelsen PI) | Yes-USDA RME | |
| Long-term Defoliation Research Study | Miranda-Sazo (Cheng PI) | No – with grad student | |
| "Wooly Apple Aphid Pest & Biocontrol" | van Zoeren & Tee (Rivera PI) | Yrs-Yes – 2 ARDP | |

Selected Professional Development and Training

| Activity | Team Member(s) | Comments: |
|--|----------------|-----------|
| Attended "NETFIPM" weekly conversations led by Anna Wallis (July-August; 2 total). | van Zoeren | Zoom |
| Attended "Cómo iniciar su negocio agrícola" via CU Small Farms Program (Sept; 2 lessons). | van Zoeren | Zoom |
| Attended the Ag Workforce Central Virtual Office Hour on "Applying for the New York State Overtime Tax Credit webinar", July 10. | Nelsen | Zoom |
| Attended 3 of Seso's Webinars: "Progressive Discipline and AEWR webinar" on July 24. "Farmworker Protection Rule Update webinar" on September 11. "Progressive Disciplinary Final Rule Litigation Update webinar" on Sept. 24. | Nelsen | Zoom |
| Attended NYFARMNET webinar on "Understanding Farm Taxes" held on 9/25/2024 | Nelsen | Zoom |
| Attended "Morning Brew" conversations led by Peter Jentsch, Poma Tech (July-September; 6 total). | van Zoeren | Zoom |
| Attended Mott's Annual Grower's Meeting on 8/6/2024 (in-person event). | Nelsen | |



LOF's Dr. Bonnie Nelsen addresses growers who have questions about unionization at the Apple Social July 16th in Orleans County.

Educational Programs/Presentations

- 2nd Annual Western NY Fruit Growers Tour, Co-hosted with Lake Ontario Ag Consulting, Inc.
 - August 13 in Orleans County
 - Continued to lead planning in the form of email communications and tour stops visits on July 1 and final tour walk-through on August 12, and a Zoom on August 9.
 - \circ $\;$ Worked closely with both teams to finalize the program.
 - Worked closely with Lindsay and Natalie 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 at Orleans County CCE
 - With Liz, 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 7 Harvest Maturity Reports in the quarter
 - Put out 3 Crunch Time Apple Growers Harvest Maturity Bulletins in the quarter (separate reports for Crunch Time Apple Growers, the producers of SnapDragon[™] and RubyFrost[™])

• "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 on grower farms.
- Were held July 16 at LynOaken Farms in Orleans County, and July 31 at VanAcker Farm in Wayne County
- Attendance was strong and many growers and other industry people recommended doing this again next year.

Publications

Fruit Notes

- Articles Written: Fruit notes newsletter
 - Co-Sponsored by the Cornell Cooperative Extension Lake Ontario Fruit Program & Lake Ontario Ag Consulting LLC – In Volume 24, Issues 9 & 10.
 - Subscribe Now for Harvest Maturity Reports! In Volume 24, Issue 10.
- 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 18 email blasts in the quarter

Applied Research

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- 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

See Quarterly Highlight

- "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 Bonnie on August 20th and 30th
 - performed maturity testing in lab and put fruit in storage for later color evaluation at Cornell Agritech
- o "Return Bloom on Fuji"
 - continued putting out treatments that were started in June.
 - Coordinated with farm manager to put out their sets of treatments.
 - harvest would be set for October.
- o "Precision Irrigation"
 - Continued weekly fruit diameter measurements at the site in Niagara County.
 - Performed maturity testing close to harvest to inform Brian Lawrence when to harvest plots.
 - Brian harvested in early September
- ARDP-Funded Project "Further Development of Peel Sap Analysis for Managing Bitter Pit Risk in 'Honeycrisp'" (Robinson & Cheng, PI's)
 - Due to warm growing season, collected weighed, peeled and froze fruit lead samples for peel SAP analysis in early July.
 - \circ $\,$ Met Mario on the road for him to take samples to Geneva and Ithaca for processing
 - o shared results with growers via e-mail
- Unfunded bitter pit prediction model for Honeycrisp using passive model and model validation
 - Collected fruit from the research sites in Orleans and Monroe Counties over 2 days in mid-August. Stored the samples in a room temperature storage room at a storage facility.
 - At ~ 21 days, evaluated the fruit for percentage bitter pit and reported to PI's and put on Box.
 - For Validation of the Bitter Pit Prediction Models:

- Over 3 days in early to mid-September collected fruit from the research sites in Orleans and Monroe Counties. Stored the samples in a 38F storage room at a storage facility.
 - Will evaluate fruit for bitter pit incidence in November or December.
- NESARE Funded "Acidity of Honeycrisp Key to Eating Quality and Competitiveness of Northeastern Apple Growers" (Kahlke PI)
 - Received notice of funding for this two year project in late July.
 - Called growers and let them know of my plans to take extra Honeycrisp when sampling for the bitter pit prediction validation model
 - \circ $\,$ Collected fruit for the study in early September with the help of Destiney Schultz
 - o took a sub sample to the lab for maturity testing
 - the rest of the samples stayed in a commercial storage of our cooperators, Lake Ontario Fruit, Inc.
 - In addition to normal maturity testing tested titratable acidity levels using pocket Atago brix/acid tester
 - through the grant purchased an Atago device for Lake Ontario Fruit, Inc.
 - Instructed their QC personnel on how to measure acidity.
 - Measured sub samples for acidity after they came out of the conditioning period (50F for 7 days, then to 38F).
 - Will take acid measurements at 30 day intervals in October for in November.
 - In the process of organizing a sensory analysis tasting panel on campus with Dr. Chris Watkins for December 4
- On-farm Rootstock/Training Systems (Funded by Keurig Dr. Pepper & ARDP (Robinson PI) and LOF team)
 - Pre-harvest site visit with Craig, Mario, Terence and KDP employees Heather Kinmond and Bill Abdo on August 8

Team and Other Duties

- Team Leader Administrative Duties
 - Approved invoices and vouchers as needed.
 - Reviewed budget and monthly financials.
 - Approved timesheets/vacation/sick leave hours for team members as needed.
 - Attended Team Leader Zoom meetings on July 18, August 15, and Sept. 19.
 - Attended Zoom to discuss variable rate spraying trials this fall on Sept. 19
 - Disseminated pertinent info to rest of team as needed from group and other email lists.
 - Organized and led weekly team (in-person or Zoom[™]) meetings on July 11, July 30, August 9, and Sept 27. Started draft agendas and put on Box for team to add to.
 - New CCE Regional Ag Team Support Specialist Jen Starr joined us at an in person team meeting at Monroe CCE in late September and joined us for lunch.
 - Duties in Prepping to Host IFTA Annual Conference on Feb 16-20, 2025 in Western NY
 - Finalizing program
 - o attended Zoom meeting on July 29th
 - o attended in person pre orchard tour on August 6th
 - worked with Laura Biasillo (CCE-Broome) and Amanda Henning (CCE-Niagara) To help develop a program for Laura's Niagara County Agri tourism Bus Tour scheduled for October 7-8.
 - Submitted April-June 2024 quarterly report.
 - Mileage Reporting for funded grants and for fleet website.

Stakeholder Contacts

- 17 site visits to assist growers or perform applied research tasks (4 Niagara, 10 Orleans, 2 Monroe, 1 Wayne).
- Assisted stakeholders via texts, phone, and email (~390).

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

• Letter of support for 2 growers Looking to change their H2-A work orders

Cultural Practices – Mario Miranda Sazo

Educational Programs/Presentations

Orchard Workshop(s):

- Planned, organized, delivered one orchard stop during the 2nd Annual WNY Fruit Growers Tour on August 13
 - Stop 2: Establishing, growing, and managing a very narrow fruiting wall in a super organized apple orchard (hosted by Zingler Farms):
 - Tour stop topics were introduced and discussed by Mario and in close collaboration with Jimmy and Mike Zingler at this stop

9th CCE LOF Hispanic Fruit Summer Tour (HH Dobbins Farms, Lyndonville, Orleans County) – August 17

- 20 employees were trained in the Spanish-language.
- We had a horticulture (Mario) and IPM (Janet) training activity.
- This August we conducted team building activity led by Mary 'Bess' Lewis.
- Fruit grower Jose Iniguez from Orleans provided closing remarks to all employees.
- We had a great Mexican dinner (with funds awarded by Farm Credit East).
- Dobbins' orchard manager (Cristian Lavandero) was invited to attend the tour and participated actively.

2024 Virtual Orchard Meetup Summer Series: 'Managing the Uncontrollable'

- This was a spring/early summer collaboration between fruit extension specialists from CCE LOF (Mario), MSU (Emily Lavely), WSU (Bernardita Sallato), PSU (Dan Weber), OMAFRA, Canada (Kristy Grigg-McGuffin), and the British Columbia Ministry of Agriculture (Lindsay Hainstock)
- This was the fourth season for this nationwide extension effort started with 'Honeycrisp' topics in June 2021.
- The last orchard meetup was conducted on June 27.
- This quarter Liz uploaded all the 2024 virtual orchard meetups in the LOF website.

Publications

Fruit Notes

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

- Announcing the 9th CCE LOF Hispanic summer fruit tour to be hosted by HH Dobbins Farm on Saturday August 17" (M. Miranda Sazo and Janet van Zoeren). Pages 9-10, Vol. 24, Issue 9, July 16, 2024.
- "Virtual orchard meetup series recordings now available" (L. Tee and M. Miranda Sazo). Page 11, Vol. 24, Issue 9, July 16, 2024.

CCE LOF Fruit Facts:

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

Peer-reviewed Research Articles:

- Gonzalez Nieto, L.; Wallis, A.; Clements, J.; Miranda Sazo, M.; Kahlke, C.; Kon, T.M.; Robinson, T.L. 'Evaluation of Computer Vision Systems and Applications to Estimate Trunk Cross-Sectional area, Flower Cluster Number, Thinning Efficacy and Yield of Apple'. Horticulturae 2023, 9, 880. https://doi.org/10.3390/horticulturae9080880
- Serrano, A.; Wunsch, A.; Sabety, J.; van Zoeren, J.; Basedow, M.; Miranda Sazo, M.; Fuchs, M.; Khan, A. The Comparative Root System Architecture of Declining and Non-Declining Trees in Two Apple Orchards in New York. Plants 2023, 12, 2644. <u>https://doi.org/10.3390/plants12142644</u>

CCE LOF YouTube Videos – Other social media efforts and collaborations

• 2024 Virtual Orchard Meetups will be uploaded in our LOF YouTube channel by Liz this quarter.

CCE LOF announcements (email blasts):

• LOF Announcements – Peel sap article fruit sampling collection in early July.

Applied Research Projects/Collaborations

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

- Some summer pruning and hand thinning was conducted for both sites (Verbridge and Breslawski) this $Q_{\mbox{\tiny 3.}}$

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

- This project was just started this year on Sept. 1.
- We have had several zooms in preparation for a nationwide survey to be conducted in Dec. 2024 and during the winter months of 2025.

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

- Peel sap and colorimetric analysis conducted in Ithaca
 - o Collected fruitlets for ARDP research sites in Wayne and Lafayette in early July

- Squeezed peels in Ithaca
- o Cheng's lab conducted colorimetric analysis for peel sap N
- Peel sap data results were compiled by Daniel Acquilano and Mario
- Peel sap nutritional rates and recommendations were emailed to growers by Craig and Mario

• Bitter pit passive evaluations, bitter pit on-tree evaluations, and fruit sample collection for bitter pit evaluation after cold storage

- Collected fruit from research sites (Wayne, Lafayette) at the end of August
- Evaluated bitter pit on-tree and harvested fruit for cold storage in early-Sept.
- Conducted passive evaluations and sent results to grower participants.
- BP evaluations after cold storage should be conducted during the week of Dec. 18

Pre-harvest collection of Gala fruitlets to predict long term fruit storability potential with peel sap in WNY – Without ARDP funds (only a small amount of funds to cover fruit analysis provided by L. Cheng)

- This is a new project, and the new data will be used to justify peel sap work on Gala with ARDP support in 2025 and next years.
- The long-term Honeycrisp research project and extension activities were finished this year.

Determining if beneficial fungi increase tree growth and reduce the need for fertilization and irrigation of newly planted apple trees – NE SARE project (M. Basedow, J. Londo, and M. Miranda Sazo)

- Without major activities this Q3.
- We tried to conduct two times a bilingual soil school.
- We were not able to conduct it due to a very early season.

Paired soil sampling 'comparison' of several 'Honeycrisp' blocks in WNY – Supported with funds provided by Deborah Aller and supported by JvZ and Daniel)

- This year I was not able to help with soil sampling.
- Liz and Janet supported the field work led by Debbie this Q3.

Long-term defoliation research study – Unfunded (led by L. Cheng, Kaspar Kuehn 'new M.S. graduate student via EDP', and Mario Miranda Sazo)

- We lost the DeMarree trial started last year due to the extensive hail damage in Wayne on July.
- A second trial was started with Gala at Lamont Fruit Farm in Orleans this season.

Team and Other Duties

- Attended Zoom meetings as needed for the planning of:
 - $\circ~$ WNY tour and other CCE LOF program activities as needed.
 - o CALS seed grant for new AI applications led by Debbie Aller
 - SCRI POM project
 - DATA initiative
 - IFTA annual conference and tour in Feb. 2025
 - o 2024 orchard virtual meetups
- Attended dry-run WNY fruit tour with team and Terence
- Helped organize, hosted one stop, and attended WNY summer fruit tour this Q3

- Met with M. Basedow and J. Londo for the myco-greenhouse study in Geneva.
- Planned/coordinated/conducted the Spanish summer fruit tour
- Reported fleet mileage as needed during this quarter, changed oil, tires, etc.
- Authored/submitted one article to LOF newsletter editor.
- Submitted Q₂ (April-June 2024, quarterly report)
- Continued working closely with Basedow, Londo, Jiang, Aller, Calixto, Obregon, van Zoeren for SH initiative and other DA projects.
- Communicated and strategically worked with Debbie Aller of the Cornell Soil Health project
- Started talking with Yu Jiang and Terence for a new SCRI proposal to be submitted on November 8.

Stakeholder Contacts

• Assisted 15 growers/farm employees (7 Wayne, 3 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

• Chaired educational program entitled "Managing Change at Toussaint Farms" LOFP Western NY Fruit Grower's Summer Tour. The program described farm leasing, multi-generation farm management, farm diversification with tree fruit and field crop cultivation, transitioning Hispanic Farm Manager from Ledge Rock into Toussaint Farms management team, and managing multiple farms efficiently.

Publications

• *"Update on New York Farm Labor Organizing"* published in Volume 24 Issue 10 of Fruit Notes (8/11/2024).

Applied Research Projects/Collaborations/Grants

- Completed data compilation, analysis, and reporting for the 2023 Crop Year Fruit Farm Business Summary. A draft of the report was submitted to three individuals for preliminary review and comments in July 2024. Feedback was used to revise the draft, and the completed report, financial scorecards, and detailed cost comparison were provided to participating farms in August 2024. The final report bill be disseminated to LOFP members (without scorecards and cost comparisons) in the fourth quarter of 2024.
- Planned 2025 NERME grant proposal entitled *"Managing Legal and Human Risk Using Performance Management Systems on New York Fruit Farms."* Completed project planning (Dr. Brad Rickard of Dyson will be co-PI), concept and budget development, and filing PI eligibility and NOI forms with CALS. Grant proposals must be filed on or before November 13, 2024.
- Managed and developed educational content for 2024 Extension Risk Management Education Competitive Grant Program titled *"Building Grant Literacy and Research Skills Among New York State*

Tree Fruit Growers". The first program report was filed on June 30, 2024, and the second report was filed on September 30, 2024.

Letters of Support

• Wrote letter of support for an Orlean County grower's H-2A job order exemption request on 8/20/2024 (due to hail damage on 8/11/2024).

Other Area-Wide Education and Advocating

• Completed descriptive report for the Western New York Foundation entitled *"Economic Impacts of Farm Loss: LynOaken Farm"*, prepared at the request of Orleans County CCE Executive Director Robert Batt. The Western NY Foundation is a philanthropic organization that supports food systems throughout the Western NY Region. I have been asked to present a summary of the report to the foundation's board later this year.

Team and Other Duties

- Attended team meeting on 7/11/2024.
- Attended LOF Apple Social event for Wayne/ Monroe/Oswego Counties on 7/31/2024.
- Attended LOF Apple Social event for Orleans/Niagara Counties on 7/16/2024.
- Assisted Janet Van Zoren with field trials on 8/15/2024 and 8/19/2024
- Assisted Craig Kahlke with field trials on 8/20/2024 and 8/30/2024
- LOFP Summer Tour on 8/12-13/2024 in Orleans County.
- IFTA Meeting (Zoom) on and July 29, 2024
- Attended LOFP team meeting at Monroe County CCE on 9/27/2024.

Professional Development

- Attended the Ag Workforce Central Virtual Office Hour on Applying for the New York State Overtime Tax Credit webinar, July 10, 2024.
- Attended Seso's Progressive Discipline and AEWR webinar on 7/24/2024
- Attended Seso's Farmworker Protection Rule Update webinar of 9/11/2024.
- Attended Seso's Progressive Disciplinary Final Rule Litigation Update webinar on 9/24/2024.
- Attended Mott's Annual grower's Meeting on 8/6/2024 (in-person event).
- Attended NYFARMNET webinar on Understanding Farm Taxes held on 9/25/2024.

Stakeholder Contacts

- Emails, Text, and Phone Calls: 54
- On-farm grower/stakeholder visits:
 - o 1 Monroe
 - o 6 Wayne
 - o 1 Niagara
 - o 3 Orleans

Integrated Pest Management – Janet van Zoeren

Educational Programs/Presentations

- Pest management program chair and DEC credits coordination for the third stop on the second annual Western New York Fruit Growers tour held on August 13th in Orleans county
- Presented "Como controlar las malezas" at Hispanic Summer Tour (27 attendees, Lyndonville, Aug 17).

Publications

Fruit Facts Articles Written:

• 7 issues

Fruit Notes Articles Written:

• Miranda Sazo, M and J Van Zoeren, J. *Announcing the 9th CCE-LOF Hispanic Summer Fruit Tour* to be Hosted by HH Dobbins Farm on Saturday August 17. Fruit Notes, Volume 24, Issue 9. P 9-10.

Applied Research Projects/Collaborations

- ARDP funded Project "Optimizing Herbicide Strategies for Weed Control" (PI-Mike Basedow)
 - Spray herbicide Stinger project (Orleans county July 7)
 - Weed assessment Grass systemic project (Wayne county Jul 17)
 - Weed assessment Stinger project (Orleans county Aug 2)
 - Weed assessment "old" Stinger project (Orleans county Aug 4)
 - Weed assessment Grass systemic project (Wayne county Aug 12)
 - Spray herbicide Grass systemic project (Wayne county Aug 22)
 - Weed assessment Unison project (Wayne county Aug 23)
 - Weed assessment Grass systemic project (Wayne county Sept 10)
- ARDP funded Project "*Mating Disruption*" (PI-Rivera)
 - Weekly trap monitoring (July-?)
 - Damage assessment (Orleans county Aug 15)
 - Damage assessment (Wayne county Aug 16)
 - Damage assessment (Wayne and Ontario counties Aug 19)
 - o Identify damage causal agents for all sites Sept 6)
- ARDP funded Project "Woolly Apple Aphid Pesticides" (PI-Rivera)
 - Weekly scouting and collecting aphids (Wayne county July)
- ARDP funded Project "Woolly Apple Aphid Biocontrol" (PI-Antolez)
 - Weekly scouting and collecting aphids (Wayne and Niagara counties July-Sept)

Team and Other Duties

- Served as Fruit Program Working Team Co-chair.
- Attended team meetings.
- Attended "Apple Social" events in Medina (July 16) and Williamson (July 31).

- Organized WNY Summer Tour pest management stop, including DEC credits.
- Helped organize 2024 IFTA meeting.

Professional Development

- Attended "NETFIPM" weekly conversations led by Anna Wallis (July-August; 2 total).
- Attended "Morning Brew" conversations led by Peter Jentsch, Poma Tech (July-September; 6 total).
- Attended "Cómo iniciar su negocio agrícola" via Small Farms (Sept; 2 lessons).

Stakeholder Contacts

- Made 19 site visits to assist growers (3 Niagara, 4 Orleans, 4 Monroe, 7 Wayne, 1 Oswego; including 4 new contacts).
- Assisted stakeholders via texts, phone, and email (97).

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

• Letter of support for "The weakest link: determining the role of sublethal cold temperatures and climate change on apple tree collapse" (Londo PI).

Other Area-Wide Education and Advocating

- Organized and presented at Twilight Meetings

 July 25 at Simpelaar Fruit Farms in Oswego county 14 attendees
- Weekly insect trapline and orchard scouting (July-Sept).



LOF's Mario Miranda Sazo and Janet van Zoeren grab a quick conversation together during the lunch stop of the 2nd Annual Western New York Fruit Growers Tour in Orleans County on August 13th.