



**Cornell Cooperative Extension
Lake Ontario Fruit Program
Quarterly Report
October - December 2025**

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

*Monroe, Niagara, Orleans,
Oswego & Wayne*

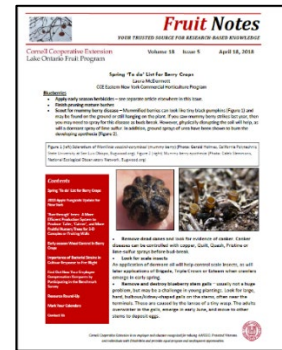
Overview: As mid fall arrives, the peak of apple harvest in early October moves quickly to the end of harvest and into meeting season and project wrap-up as fall turns into winter. While there were no major hail events during the growing season, the extended drought brought smaller fruit size, and therefore an underestimation of the crop size, as done in early summer. Very little precipitation was received until after most apples had been harvested. We'll probably be 1-3 million bushels short of the original forecast. For the second year in a row, without the rain, the excellent harvest weather from September spilled over into October for the most part. In the Rochester area, October produced near average temperatures and slightly below normal rainfall (-0.57"). By contrast, the Buffalo area produced above normal average temperatures (+2.3F) with above normal rainfall (+1.35"). Looking at some weather stations in our region, there was also great variability. Most of the rainfall in both regions occurred in the second half of the month, when there were very few apples left to be harvested, which points to very few days of harvest halted/slowed due to weather. As far as harvest maturity, most varieties picked out a few days ahead of normal, as our growing degree day accumulations were above normal. As far as fruit quality, we are optimistic about good storage potential. Although we pay less attention to daily weather patterns during the winter, we do keep a close eye to make sure that the trees start to acclimate and we hope for colder weather without sudden drops in temperature that could produce "winter injury" damage to trees. November for the Buffalo area had average temperatures slightly below normal (-1.2F), and the Rochester area was even cooler than normal (-2.4F). December average temperatures for Buffalo were significantly cooler (-4.0F) as well as the Rochester area (4.8F). In addition, we did not see any sudden drops in temperatures that would cause winter injury. Therefore, we're confident that fruit trees have reached (or are very close to) their chilling requirements, and can be pruned safely.

November began with Craig attending the Annual Great Lakes Fruit Workers Conference, held in Grand Rapids, Michigan. The networking with other extension educators that have similar programming areas was beneficial. In early December, we held the first of two advisory committee meetings scheduled for the off-season. Grower and industry participation was strong, and it spurred many session ideas for our upcoming winter programs. The RFP for the Apple Research and Development Program (ARDP) 2026 was released and all grants were submitted by the deadline of November 3. Janet, Mario, and Craig were cooperators or PIs in several proposals. Craig and Mario attended the ARDP project reporting sessions before Christmas at Cornell AgriTech. In place of Bonnie Nelsen, Craig gave her presentation for her funded project. LOF also had a Christmas lunch on December 19. It was a great opportunity to close out the year as a team.

Personnel: On November 17, Craig received notice that our Business Management Specialist, Bonnie Nelsen, was taking a position outside of Cornell, and was resigning effective December 24. She took all of her remaining leave between December 1 and the 24th. Right away, Craig worked with Peter and HR to revise the position description and prepare it for posting in the new year. Craig also reached out to potential candidates to inform them of the position and encourage them to apply if they felt it was a good fit.

By the Numbers:

Team Publications:	Editions:	Articles:
Fruit Notes	1	10
Email Blasts	13	N/A
Fruit Facts	0	N/A
Harvest Maturity Reports	4	N/A
Crunchtime Maturity Bulletins, and other Club Variety harvest maturity reports	8	N/A



Selected Publications by LOF Team	Periodical	Author
<i>Save the Dates for LOF Winter Fruit Schools</i>	Fruit Notes, Vol. 25, Issue 7.	<u>C. Kahlke</u>
<i>Cornell IPM to pause Crop and Pest Management Guidelines for 2026</i>	Fruit Notes, Vol. 25, Issue 7.	<u>J. van Zoeren</u>
<i>We are Looking for Growers for Testing of a Novel Frost Protection Product in the Spring of 2026</i>	Fruit Notes, Vol. 25, Issue 7.	Manohar Edited by <u>C. Kahlke</u>
<i>What has PACMAN Delivered for NY Apple Growers?</i>	Fruit Notes, Vol. 25, Issue 7.	<u>M. Miranda Sazo</u> , T. Robinson, Y. Jiang, B. Lawrence, <u>C. Kahlke</u> , M. Basedow, and <u>L. Tee</u>
<i>A Historic Transition for the NY Apple Industry</i>	Fruit Notes, Vol. 25, Issue 7.	<u>M. Miranda Sazo</u> and <u>C. Kahlke</u>

Business Consultation

Specialist	Site Visit	~ Phone/Texts/Emails
Kahlke	4	~145
Miranda Sazo	6	~40
Nelsen	NA	NA
van Zoeren	0	~10



Honeycrisp apple juice samples awaiting testing for their acidity levels as part of a 2 year NESARE grant.



Brian Lawrence, Craig Kahlke, Oksana Bihun, and Anna Wallis at the annual Great Lakes Fruit Workers conference in Grand Rapids, MI.

Selected Presentations by LOF Team	Periodical/Meeting:	Presenter:
<i>Positioning Your Orchard for Technology Adoption</i>	APAL, Australia, November 19 (4 presentations in the series)	Miranda Sazo
<i>"Tree Fruit IPM for Home Gardeners"</i>	Annual Master Gardeners meeting (Geneva, NY on Oct 29)	Nelsen
<i>"A Study of Orchard Leasing Practices in New York State's Apple Industry"</i>	Annual ARDP Project Summary meeting (Geneva, NY, Dec 10).	Kahlke (for Nelsen)
NY Apple Tasting as part of a pre-dinner activity	CCE-Monroe Annual Meeting on Oct 23	Miranda Sazo

Applied Research/Collaborations

Activity/Proposal/Grant	Person(s)	Funded (Y/N) or Unfunded/ Preliminary Research (UPR)
<i>"Processing Systems Rootstock Trial"</i>	Kahlke, Miranda Sazo, Tee	Yes-ARDP & Keurig-Dr. Pepper (Robinson, PI)
<i>"Acidity of Honeycrisp – Key to Eating Quality and Competitiveness of Northeastern Apple Growers"</i>	Kahlke, Tee, Baker, Watkins, Dando	Yes-NESARE (Kahlke, PI)
<i>"Precision Orchard Management of Apple"</i>	Miranda Sazo, Kahlke, Tee, Lawrence, (Robinson PI)	Yes-SCRI & ARDP
<i>"Improved Color on 'Premier' Honeycrisp"</i>	Kahlke, Tee, Miranda Sazo, Lawrence	Yes-ARDP
<i>"Return Bloom on Honeycrisp"</i>	Kahlke, Tee, Lawrence (Robinson PI)	Yes-ARDP

<i>“Temperature Extremes Long-term Project”</i>	Miranda Sazo & Basedow (Kalcsits PI)	Yes-SCRI
<i>“Determining if beneficial fungi increase tree growth and reduce the need for fertilization and irrigation of newly planted apple trees”</i>	M. Basedow, J. Londo, and M. Miranda Sazo	Yes-NESARE

Selected Professional Development and Training

Activity	Team Member(s)	Comments:
ARDP Project Reporting on Dec 10	Kahlke, Miranda Sazo	Heard PI presentations of projects we’re involved in and others of interest.
Produce Safety Alliance Extension Meeting Oct 8	Kahlke	Discussed winter food safety programming plans with the PSA and extension educators
Fruit PWT meeting Nov 14, Zoom	Kahlke, Miranda Sazo, van Zoeren	Shared research programming updates, listened to other’s updates, and participated in planning for an in-person meeting this winter
LOF Advisory Meeting, Dec 3, Ogden, NY	Kahlke, Miranda Sazo, van Zoeren,	Mainly brainstormed Winter Fruit School programming ideas and discussed 2 open upcoming faculty positions
Annual “Great Lakes Fruit Workers” meeting	Kahlke	Nov 17-20; Grand Rapids, MI.
Participated in a conversation for the MIfruitcast Podcast on Oct. 14	Miranda Sazo	Online



Fruit to be hauled from Albion to Geneva, NY for color analysis (Greefa packing line at the Raw Products Building), along with external and internal analysis from three different experiments.

Fruit Quality Management – Craig J. Kahlke

Educational Programs/Presentations

- Harvest Maturity Program (continued from 3rd quarter)
 - 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.
 - Send data to industry reps on Tuesday evenings, and had conference call on Wednesday mornings
 - Put out most maturity reports Wednesdays
 - 4 Harvest Maturity Reports were sent out in October
 - 2 Crunch Time Apple Growers Harvest Maturity Bulletin was sent out in October (for NY2 -RubyFrost™)
 - 3 Midwest Apple Improvement Association electronic maturity reports were sent out in October for MAIA-1 (Evercrisp™) and MAIA-L (Ludacrisp™)
 - 3 Regal 10-45 (Wild Twist™) electronic maturity reports were sent out in October

- Presentations
 - Presented an ARDP project summary entitled “A Study of Orchard Leasing Practices in New York State’s Apple Industry” at the Annual ARDP Project Summary meeting in Geneva, NY on Dec 10. This is in place of PI Bonnie Nelsen, who was resigning.

Grant Submission(s), Re-Submission(s), Letter(s) of Support, Proposal Meeting(s):

- In October, communicated via email with key PI’s and LOF specialists to prepare for our ARDP proposals submissions due Nov 3.
 - Was a cooperator on 3 submitted proposals.

- Winter Conference Planning – Winter Fruit Schools, Hosted by CCE-LOF
 - After having 1 ½ day conferences in the Rochester area for the past 3 years, it was decided (after a lot of stakeholder feedback) to go back to our old “Winter Fruit Schools”
 - The format is nearly identical 1-day programs on either side of Rochester
 - Main session ideas were generated from the advisory meeting on Dec. 3.
 - Planning continued with multiple Zoom and in-person meetings and email communications to divvy up sessions/topics, and speaker suggestions.
 - Sponsorship solicitation was sent out just before the holidays.
 - Sites are booked:
 - Feb 4 at CCE-Niagara in Lockport
 - Feb 5 at Rootstock Cider & Spirits in Williamson

Publications

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 13 email blasts in the quarter.

Applied Research

- NESARE Project *“Acidity of Honeycrisp – Key to Eating Quality and Competitiveness of Northeastern Apple Growers”* (Kahlke PI)
 - Randomly pulled samples from storage (Lake Ontario Fruit, Inc.) for ~30 day postharvest (PH) acidity measurements at Orleans CCE on 10/17 with Liz
 - Randomly pulled samples from storage (Lake Ontario Fruit, Inc.) for ~60 day PH acidity measurements at Orleans CCE on 11/12 & 11/13 with Liz
 - Gathered the last of the apple samples from storage (Lake Ontario Fruit, Inc.) for ~90 day PH acidity measurements at Orleans CCE on 12/4 & 12/5 with Liz
 - separated six of the 46 samples for sensory analysis on campus
 - Took six total sets of samples representing 2 each of high, medium, and low acidity levels to Cornell campus for formal sensory analysis with Dondo lab on Dec 8.
 - Assisted lab and sample prep. Full data to follow from Dondo lab in January.
- SCRI/ARDP Project *“Precision Orchard Management in Apple”* –
 - Return bloom on Honeycrisp project
 - Transported all samples from Lake Ontario Fruit Inc.. to AgriTech on Dec. 8.
 - Ran the samples on the Greefa line for size and color on Dec 9.
 - Enhanced Color on ‘Premier’ Honeycrisp project
 - Transported all samples from Lake Ontario Fruit Inc.. to AgriTech on Dec. 8.
 - Ran the samples on the Greefa line for size and color on Dec 9. Performed external & internal evaluations, as well as firmness and brix.
- Keurig Dr Pepper/ARDP Project *“Processing Systems Rootstock Trial”*
 - Harvested all fruit from Breslawski plot on Oct 3, took representative samples of each scion/rootstock combination to storage at Lake Ontario Fruit, Inc.
 - Entered data and shared on Box with the rest of the project cooperators.
 - Transported all samples from Lake Ontario Fruit Inc. to AgriTech on Dec. 8.
 - Ran the samples on the Greefa line for size and color on Dec 9.

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.
 - Disseminated pertinent info to rest of team as needed from:
 - Monthly Team Leader meetings on Oct 16, Nov 20, and Dec 19.
 - Group and other email lists
- Organized and led team meeting on Dec. 19.
- Submitted July-September 2025 quarterly report.
- Attended WNY AMG on Oct. 17 (Zoom). Gave team update.
- Completed CCE Annual Program Reporting by late November.
 - Collaborated with other LOF specialists to divide up workload.
 - Signed off on all LOF program reporting.

Professional Development

- Attended the Great Lakes Fruit Workers Meeting on Nov. 17-20 in Grand Rapids, MI.
- Attended ARDP Project Reporting at AgriTech on Dec 10
 - Heard PI presentations of projects I'm involved in and others of interest

Stakeholder Contacts

- Assisted ~ 45 stakeholders via texts, ~ 40 via phone, and ~60 via email.
- Farm/Industry visits: 4 (Monroe, Niagara).

Horticulture – Mario Miranda Sazo

Educational Programs/Presentations

2025 Hispanic Harvest Celebration:

I collaborated with Mary "Bess" Lewis of Cornell Agricultural Workforce Development and grower host Evan Schutt of Schutt's Apple Mill in Webster, Monroe County, for a first-time CCE LOF event to be conducted on Sunday October 26.

Our intention was to invite orchard crew members to celebrate the end of the 2025 apple harvest for their hard work and dedication with donuts and cider.

Unfortunately, we got very low registration numbers and the event was cancelled.

Other Presentations Given – Invited Presentation:

- This Q4 I visited several apple fruit regions across Australia in November 13-23, 2025, as an invited speaker for the "Future Orchards®" series of orchard walks and talks organized by APAL (Apple and Pear of Australia Limited). I shared my expertise in high-density apple orchard systems, mechanization, and the integration of digital technologies to improve labor efficiency.
- My four presentations focused on "*Positioning Your Orchard for Technology Adoption*". I explained how transitioning to narrower, two-dimensional orchard systems simplifies management, facilitates mechanization (such as mechanical pruning), and allows workers to make simpler decisions, which increases overall efficiency.
- In mid-December, one of my presentations was posted on the APAL YouTube channel and can be found in the following link: <https://www.youtube.com/watch?v=bGVfNAYSe-c>

Proposal(s) submitted, re-submitted

- Collaborated with Professors Robinson, Cheng, and Londo for the submission of three ARDP proposals submitted by end of November, 2025.

Publications

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

- 'With deep sadness, we honor the memory of Robert Brown II: A cherished friend, an influential leader in the Western NY apple industry, and a remarkable contributor to the core mission of CCE' (M. Miranda Sazo). Page 2, Vol. 25, Issue 7, Dec. 16, 2025.
- 'What has PACMAN delivered for NY apple growers? Key advances in precision crop load management. Plan to attend the coming nationwide zoom webinar: 'The past, the present, and the future of PACMAN'. (M. Miranda Sazo, T. Robinson, Y. Jiang, B. Lawrence, C. Kahlke, M. Basedow, and L. Tee). Pages 4-5, Vol. 25, Issue 7, Dec. 16, 2025.
- 'A historic transition for the NY apple industry' (M. Miranda Sazo and C. Kahlke). Pages 6-7, Vol. 25, Issue 7, Dec. 16, 2025.
- 'Reducing apple crop loss from cold and heat events: We want to hear from you'. (M. Basedow and M. Miranda Sazo). Page 7, Vol. 25, Issue 7, Dec. 16, 2025.

CCE LOF YouTube Videos – Other social media efforts and collaborations:

- This quarter I was interviewed by Emily Lavelly, MSU, for a new episode of MIFruitcast on November 4. In this podcast, we discussed many different topics including the 2025 apple season in Western New York, research projects that I am working on, and new projects that are on the horizon. The MIFruitcast can be found here:
<https://www.canr.msu.edu/podcasts/interview-with-mario-miranda-sazo>
- I also plan to ask Liz to link the APAL YouTube video to our CCE LOF website next year.

Applied Research Projects/Collaborations

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

- Harvested only Golden Delicious (due to a sudden drop) at Verbridge on October 1.
- Harvested the rest of the Verbridge trial (Rome and Idared), collected samples, and stored them in Geneva on October 6.
- Helped Liz and Craig to conduct trunk diameter measurements at the Breslawski and Verbridge trials on November 3.
- Partial results were presented by Terence Robinson at the ARDP annual meeting on December 10.

SCRI PCLM project (T. Robinson)

- Authored a final report about LOF extension activities and submitted it to Craig for final comments/revisions.
- Final LOF extension report was submitted to Terence by Craig on Nov. 24
- Met with Terence on November 25 and began brainstorming a nationwide meeting for PACMAN to be conducted on January 12, 2026.
- Had PACMAN extension zoom meetings with Emily Lavelly (MSU) on Nov. 25, with Bernardita Sallato (WSU) on Dec. 1, and with both Dan Weber and Don Seifrit (PSU Extension) on Dec. 2.
- Liz Tee set up zoom webinar registration, website event, and developed a PACMAN flyer and first advertising/registration was sent to growers nationwide before Christmas.

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

- This project generated several zoom meetings this Q4 for survey analysis and the development of a manuscript about climate adaptation across all the apple regions in the USA.

- On November 12, I attended the SPARC SCRI annual review Zoom.
- We are collaborating with the orchard virtual team composed of extension folks from WSU, MSU, PSU, and Canadian specialists for a SPARC webinar about heat to be conducted on Feb. 27, 2026.
- We are also developing the educational topics for a SPARC heat school to be conducted in Wenatchee, WA, on March 11, 2026.
- We recently included Mike Basedow in the SPARC extension team. For this to be a successful addition to the project's objectives, I agreed to share 50/50 my initial Cornell SCRI SPARC extension budget with him for years 2026, 2027, and 2028.
- The last SPARC extension zoom meeting was conducted on Dec. 17.

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)

- The main activity for this Q4 was to find a date for bilingual soil health virtual training.
- It will be conducted on March 12, 2026

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

- Debbie prepared a poster and presented some of the results at the CALS Innovation Day on October 7.

Team and Other Duties

- Attended Zoom meetings as needed for the planning of:
 - CCE Spanish session during Ag-in-service with Raúl Lemos Garza and rest of the team.
 - CCE LOF program activities as needed.
 - SCRI POM project.
 - SCRI SPARC project.
- Had a Zoom interview with Tabinda Shahid, a Ph.D. student in Plant Breeding and Genetics. It was conducted as part of her Graduate Extension Assistantship on Oct. 27.
- Gave a short horticultural lecture and introduced the use of Ag-AI to a group of high school students at the Bishop Kearney High School in Rochester on Nov. 4.
- Took HR sexual harassment training on Oct. 21.
- Participated in a conversation for the MIfruitcast Podcast on Oct. 14.
- Attended/represented LOF team at the annual CCE Monroe meeting in Rochester in Oct. 23.
- Had a meeting with Professors Londo and Weber and proposed the idea of an endowment to support the hiring of future Robinson's replacement on Oct. 24.
- Attended CCE LOF advisory in Spencerport – Dec. 3
- Attended ARDP annual meeting in Geneva – Dec. 10
- Attended a CCE LOF get-together 'end of year celebration' at a restaurant in Rochester – Dec. 19
- Reported fleet mileage as needed during this quarter, changed oil, tires, etc.
- Submitted Q₃ (Jul.- Sept. 2025, quarterly report)
- Wrote three articles for the LOF newsletter (Issue 7)
- Continued working closely with Basedow, Londo, Jiang, Aller, Calixto, Obregon, van Zoeren for soil health initiative and other DA projects.
- Communicated and strategically worked with Debbie Aller of the Cornell Soil Health project.

Professional Development

- Travelled to Australia and visited main apple regions – Nov. 13-23
- Attended SCRI SPARC annual review day – Nov. 12

Stakeholder Contacts

- Assisted 6 growers/farm employees (3 Wayne, 2 Orleans, and 1 Niagara). 10-15 emails, 20 phone communications, 10 texts (pics, videos, voice messages, etc.).

Lake Ontario Fruit Team – Bonalyn (Bonnie) Nelsen **(on leave Dec 1-24, 2025)**

Bonnie sent an email to me that I received on November 17, that stated that she had taken another position outside of Cornell, and would be finishing up some project requirements over the next two weeks before using up all of her accrued leave in December. Therefore, I did not receive a quarterly report from her.

Integrated Pest Management – Janet van Zoeren **(on leave between September 29 – November 30, 2025)**

Team and Other Duties

- Served as Fruit Program Working Team Co-chair.
- Organized and coordinated winter fruit school pest management talks.
- Attended team meetings.
- Attended advisory committee meeting (Dec 3).
- Attended Orleans county extension annual meeting (Dec 4).

Stakeholder Contacts

- Made 1 site visits to assist growers (1 Orleans).
- Assisted stakeholders via texts, phone, and email (13).