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Fruit Notes

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Cornell Cooperative Extension
Lake Ontario Fruit Program

Volume 22 Issue 15 November 3, 2022

Fall Maintenance and Tips for Your Apple Orchard

Mario Miranda Sazo

The Fall is the ideal time for post-harvest foliar nutritional sprays, tree digging/planting in the fall, and soil pH determination to make good fertilization decisions in the future. Don't wait for a heavy frost or a sudden change in the current nice fall weather pattern and be proactive. Hope you had a great harvest season in 2022!



Fall photos courtesy: Elizabeth Tee (CCE LOF)

Fall foliar urea application to improve tree reserve nitrogen for the coming season: As we have had a very mild fall so far, there is still time to apply foliar urea to the blocks that had **heavy crop load** and **marginal leaf nitrogen** (right around 2% or even less). For these blocks, we suggest you make one to two sprays of 3% foliar urea (25 lbs. urea/100 gal) to build up tree reserve nitrogen level for the coming season. With 'Honeycrisp' and other varieties that are sensitive to nitrogen, we have been recommending a fairly low N status (2%) to improve fruit quality. These trees will benefit from foliar urea sprays in terms of nitrogen reserve status. Some growers may be concerned that foliar urea application in the fall might compromise tree cold hardiness, but research done at Cornell on both 'McIntosh' and 'Empire' showed that two foliar applications of 3% urea (25 lbs urea per 100gal water) after fruit harvest in the fall does not affect winter tree cold hardiness.

Chemical defoliation for on-farm nurseries in WNY: If nursery trees are to be dug in the fall and then fall planted or stored during the winter and spring planted they need to be defoliated before digging. Trees should not be dug with leaves on them since leaves transpire large amounts of water and can dry a tree out in a matter of days. Also the leaves become moldy in storage resulting in molds on the tree itself.

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Most commercial nurseries use chemical sprays to aid in defoliation. Most commonly copper is used to defoliate the trees. However, if the copper concentration is too high the bark, lateral buds and the cambium of the tree can be damaged resulting in poor growth or tree death the next year. Over the last 30 years, we have seen numerous examples of copper damage to trees from nursery defoliation treatments.

Recent Cornell research showed that the best results for chemical defoliation were obtained with low doses of copper chelate plus ABA (ProTone). However, ABA is not yet labeled for use as a defoliant in the nursery. The second best treatment was a **low doses of copper chelate plus Urea plus an organosilicone surfactant (Silwet)** (see Table 1). Be careful not to exceed the recommended rate of Copper chelate because higher rates can damage lateral buds which are needed next year in the orchard for branching. Two sprays worked best (4 and 2 weeks before expected digging) but one spray at 4 or 3 weeks before digging also gave acceptable results. With warm temperatures in October, complete defoliation was achieved 4 weeks later but with cool temperatures 5 weeks was required. Trees should be dug in early November but before the ground freezes or the first severe cold snap which usually occurs in late November in Western NY.

Table 1. Recommendation for chemical defoliation of nursery trees in NY State.

Timing ¹	Product	Concentration	Rate of Formulated Product
Early October to mid-October	Copper EDTA (7.5% Cu) +	2%	256 oz/100 gal
	Urea+	1-3%	1-3 lbs./ 100 gal
	Silwet organosilicone surfactant	0.1-0.25%	1-2.5 pt./acre

¹Apply 4 and 2 weeks before expected digging.

Soil pH determination is more reliable in the Fall: Now is a good time to take soil samples. By doing so you can compare the results every 2-3 years. Soil sampling in the fall can provide valuable information. Moreover, taking a representative soil sample is important to determine lime and fertilizer requirements and avoid costly over or under fertilization. Most soils should be sampled every 2 - 3 years; more often for sandy soils, or problem areas. Fall is generally considered to be the most reliable time to pull samples, especially when it comes to pH. Soil pH fluctuates and tends to be lower in the summer when temperatures are higher and soils are dryer. Soil pH determination is more reliable in the Fall when soil moisture is a bit higher. Please be aware that optimal pH range for growing most apple varieties is from 6.0 to 7.0. Recent Cornell research has shown that for ‘Honeycrisp’ (all strains on a dwarfing rootstock), we need to target the **upper half of the optimal pH range from 6.5 to 7.0.**

Is Fall the best time to plant, or are there any concerns to consider? Fall planting is only a good strategy if properly done and at the right time. In general, fall planted orchards have shown a strong growth the first year compared to spring planted trees. Fall planted trees have also shown better blooming synchrony with older established orchards and thus are more likely to be protected for fire blight with streptomycin spray programs on the farm. While new spring planted trees bloom later than established orchards when temperatures are warmer, they are at higher risk of blossom blight if left unprotected or with fewer streptomycin sprays.

Successful fall planting requires a combination of conditions: (1) a well-prepared site with good drainage, weeds under control and minimal rodent and deer populations, (2) mild weather and warm soil temperatures for several weeks after planting to encourage root establishment, (3) nursery trees that begin their dormancy process early, including leaf drop, (4) a nursery supplier that is willing to fall dig trees, (5) sufficient labor to plant trees quickly without drying, and (6) proper soil conditions to re-close the soil around the roots without leaving air pockets. The soil should flow when plowed or disced to allow the soil to flow around the roots as the tree planter passes. This last point is probably the most critical. There are some fall seasons in Western NY that are just too wet and proper soil conditions are never achieved after Oct 15. It may be a costly mistake to

“mud” tree in if the soil is too wet this year. This can lead to tree dessication and death. In wet years we recommend that the trees be left in the nursery or stored until the spring.

LOF Advisory Meeting December 16th

Craig Kahlke

Please join us in-person at the Ogden Town Hall (269 Ogden Center Road, Spencerport, NY 14559) for our annual winter advisory meeting where you can spend time with the team reviewing the team's educational programs and most importantly providing us feedback. In addition, we are looking to finalize our program for our LOF Winter Fruit Schools, returning live in winter 2023. Advisory meetings are important for the team to ensure that our programs and research are aligned with the industry's needs. All are invited to this FREE event! There will be a Zoom option for those who are unable to attend in person. Full agenda to follow.

Please Pre-Register by December 13th to make sure we have enough lunches - https://lof.cce.cornell.edu/event_preregistration_new.php?id=1710

Questions? Don't hesitate to contact Craig 585-735-5448 or cjk37@cornell.edu.

Mating Disruption Information-gathering Survey

Monique Rivera and Janet van Zoeren

We would like to help provide any information or research efforts that can help you feel more confident implementing mating disruption in your orchard blocks. In order to better focus our efforts (and contributing to a multi-state, multi-commodity crop effort) we need you to participate in a survey regarding **your use and/or interest in pheromone mating disruption technologies for insect pest management in specialty crops.**

Please follow [this link](#) to take the survey.

This survey is being conducted by the University of Wisconsin-Madison, in collaboration with Cornell University, Michigan State University, Oregon State University, University of California-Davis, Rutgers University, University of Georgia, University of Minnesota, and California Polytechnic State University.

The purpose of the survey is to gain a better understanding of how mating disruption technologies are used by fruit, nut, and vegetable growers. We are interested in your opinions about mating disruption technologies and the factors that are most important in your decision making around their use. This information will be used to guide research efforts aimed at improving mating disruption technologies and their availability.

The survey takes about 20 minutes to complete. Thank you for your time.

Farm Food Safety Meeting
Monday, December 5th, 9AM-4PM
CCE Wayne County, 1581 Rte. 88N, Newark, NY 14513
\$15 per person, includes lunch
Pre-registration required

Agricultural Water Quality Assessment

Ag water includes surface water sources including ponds, creeks, streams, canals, lakes, water storage tanks, and wells. Contaminated agricultural water from these sources, used for irrigation, that comes into contact with produce in the field can lead to human food-borne illness. This session will go over the basics of identifying, assessing, preventing, or dealing with potential problems. If your farm falls under Food Modernization Act regulations, the ag water assessments are expected to become a requirement (by farm size) in 2023-24. Regardless of the regulations, any produce farm using surface water/wells can benefit from learning what factors influence ag water quality.

Tips for Improving Flow and Efficiency in Wash/Pack Facilities

Learn how to create an efficient process, from harvest through wash/pack activities. Share your experiences and questions, regardless of the size of your farm operation.

Cleaning and Sanitation Updates

Industry information on sanitizers and choosing the right one for your farm operation.

Yes! Harvest Bins and Fruit Picking Bags CAN be Cleaned and Sanitized -- *Faith Critzer, University of Georgia, and Laura Straw, Virginia Tech*

Discussion on how to clean and sanitize hard to clean things on your farm.

Traceability Procedures

If you are following GAPs/HGAPs food safety programs, you are already familiar with traceability of produce. FDA will be releasing a new regulation that will require farms to be part of a universal traceability program to expedite finding sources of outbreak problems. Note: The regulations will pertain to certain crops for farms where their buyers are required to be covered by the traceability regulation.

New York State has created a traceability program that can help growers and buyers be on the same page for produce being grown and sold in New York. Steve Schirmer, Produce Safety Field Administrator for NYS Department of Agriculture and Markets, will lead this discussion.

What are the Most Common Food Safety Issues Seen on Produce Farms? -- *Kristina Sweet, Ag Development Chief, Vermont Agency of Agriculture*

What barriers or issues have some farms faced when attempting to implement food safety practices? The information presented here is equally as important for operations that don't fall under the FSMA regulations as the farms that must meet the regulations.

Cost and Registration

\$15 per person; lunch is included. Pre-registration is required by November 30, 2022. Email Kimberly Cummings at kjc259@cornell.edu or call 315-331-8415 to pre-register.

More Information

Contact Robert Hadad, Vegetable Specialist, CCE Cornell Vegetable Program, at 585-739-4065 for more information.

Food Safety Certification for Specialty Crops Program – You Can Be Reimbursed for Eligible Expenses

Craig Kahlke

Did your specialty crop operation recently incur on-farm food safety program expenses related to obtaining or renewing a food safety certification in calendar years 2022 or 2023? You may be eligible for financial assistance through USDA's Food Safety Certification for Specialty Crops Program (FSCSC).

USDA's Farm Service Agency will accept FSCSC applications for program year 2022 from June 27, 2022, through January 31, 2023. Applications for program year 2023 will be announced at a later date.

Full Info here: <https://www.farmers.gov/pandemic-assistance/food-safety>

USDA to Measure Cost of Pollination

Jordan Smith, 800-498-1518, Jordan.smith2@usda.gov

The U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) will conduct its 2022 Cost of Pollination survey from November through December of 2022. The survey will be sent to nearly 16,000 producers nationwide.

"Honey bees are important pollinators of crops ranging from almonds to zucchinis," said King Whetstone, director of the NASS Northeastern Regional Field Office. "To help accurately depict the health of the pollination industry in the United States, NASS will ask crop producers about their use of honey bees, the fees they paid for honey bee pollination, and any other expenses related to pollinating their crops."

Survey recipients are asked to respond securely online through the Respondent Portal at agcounts.usda.gov, by mail, or fax. Those who do not respond by November 14 may be contacted by a NASS representative to arrange an interview to complete the survey.

All information reported by producers will be kept confidential, as required by federal law. NASS will publish the survey data January 11, 2023, on the NASS website at nass.usda.gov and in the NASS Quick Stats searchable database at quickstats.nass.usda.gov.

For more information about the Cost of Pollination survey and NASS's bee and honey program, visit nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Bee_and_Honey. NASS's other honey bee reports include the *Honey* report published every March and the *Honey Bee Colonies* report published every August.

For assistance with the survey, producers are encouraged to call the NASS Northeastern Regional field office at (800) 498-1518.

NASS is the federal statistical agency responsible for producing official data about U.S. agriculture and is committed to providing timely, accurate and useful statistics in service to U.S. agriculture.

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Research Report: How New York Farmers Adapted to New Farm Labor Overtime Requirements

Richard Stup, Elizabeth Higgins, Jason Karszes, Bradley Rickard, and Christopher Wolf

New York farmers are putting much thought into adapting their businesses in response to the state's farm labor [overtime requirements](#). Cornell researchers are studying how farms adapted and continue to adapt to changing regulatory requirements and to an overall tight and competitive labor market. A multi-year project called "New York Farm Workforce in Transition" is currently underway with objectives to help farm employers adapt in ways that will support farm profitability, increase employee productivity, and encourage employee retention.

A new report is available that focuses on how New York farms adapted in 2020 as the first 60-hour overtime threshold was implemented for farm labor in the state. The report "How New York Farmers Adapted to New Farm Labor Overtime Requirements" explores the strategies that specialty crop and dairy farms used to respond to the regulation, and employer perceptions about how overtime affected employee recruiting and retention. Access the report here: [How New York Farmers Adapted to New Farm Labor Overtime Requirements](#)

More data and analysis from this research project will be published as it becomes available. Be sure to subscribe to the [Ag Workforce Journal](#) to get the latest updates, click the blue subscribe button near the bottom of the screen.

New York Farm Laborer Overtime Threshold to Decline

Richard Stup, Cornell University

New York's state government took another major step toward reducing the farm laborer overtime threshold on September 30, 2022. Labor Commissioner Roberta Reardon issued a [press release](#) and official [order](#) accepting the findings of the [Farm Laborer Wage Board report](#). The NY State Department of Labor will now begin a rule making process to make the Commissioner's order formally a state regulation, this process will include a 60-day public comment period. This is the conclusion of a long and controversial political process that started with the 2019 passage of the Farm Laborer's Fair Labor Practices Act (FLFLPA) in 2019, and continued through 14 lengthy public meetings and hearings of the wage board.

To continue reading: https://rvpadmin.cce.cornell.edu/uploads/doc_1094.pdf

Final H-2A Rule Tightens Housing Laws, Increases Government Enforcement Ability

The Department of Labor has released its final rule for the H-2A temporary labor program, which is increasingly being used by specialty crop farmers as labor shortages force them to turn to the federal program to ensure workers are available for harvests and other farm needs. Please click here for the rest of the article: <https://blogs.cornell.edu/enychp/business/new-regulations-for-the-h2a-program-become-effective-november-12-2022/>

The 2022 Berry Pricing Survey

We want to invite you to participate in the 2022 Berry Pricing Survey! Cornell conducts a berry pricing survey across New York State every two years. This project provides averaged, statewide berry prices and trends to berry growers so they can better manage their business.

A hard copy, paper survey will be mailed to farms on our list in Mid-October. If you would like to complete the survey online, you can do so IMMEDIATELY by clicking on the link below:

https://cornell.ca1.qualtrics.com/jfe/form/SV_di0CA8YAnjw8P5k

You are welcome to fill out whichever is most convenient. Just please complete one or the other and make sure you fill in your name on the survey, so we do not double count you and do not send you reminders! All your responses will be totally *confidential*. If you want your response to be **anonymous**, just complete the survey without your *name* at the end. (The link is totally anonymous and cannot be traced back to you.)

Please contact Kris Park at ksp3@cornell.edu or 607-255-7215 with questions relating to the survey.

2022 Labor Roadshow VI offered by New York's Ag Workforce Development Council

Dr. Richard Stup, CCE-Agricultural Workforce Development Program, Ithaca, New York

New York's Ag Workforce Development Council (AWDC) [Labor Roadshow VI](#) heads back on the road with three in person sites and one online option for 2022. The program will run from 8:30 am to 4:30 pm. [Registration](#) is required, and payment of \$65 per person is collected on site. Agenda, registration, and more details are available at agworkforce.cals.cornell.edu/labor-roadshow-v.

- **November 9:** Genesee Community College-Batavia Campus, One College Road, Batavia, NY 14020-9704. Room T119 Lecture Hall, Conable Technology Building.
- **November 10:** Cayuga-Onondaga BOCES, 1879 West Genesee Street Rd, Auburn, NY 13021. Conference Room 1, 2, 3. **Online Option:** on November 10, 2022 only, the event will be broadcast for remote audiences and recorded for paid registrants to view later.
- **November 22:** CCE Saratoga Auditorium, 50 West High Street, Ballston Spa, NY 12020.

Labor continues to be the primary challenge for many farm businesses and Labor Roadshow VI tackles those challenges head-on with topics:

- Attracting and retaining your farm workforce
- Management strategies in a union eligible work environment
- TN Visas: Introduction to the program and best practices for using
- The H-2A Program: Accessing guest workers for all types of farms
- Producer's real-world experiences with H-2A
- Farm Safety: Real world tips for building a strong safety culture
- Farm-provided employee housing management and development

Ag Workforce Development Council member organizations include: NEDPA, Cornell Cooperative Extension, Cornell Agricultural Workforce Development, Cayuga Marketing, AgriMark, Upstate Niagara, New York Farm Bureau, New York Vegetable Growers Association, New York Animal Ag Coalition, Agri-Placement Services, New York Horticultural Society, Dairy Farmers of America, Farm Credit East, Gray & Oscar LLC.

NY Herbicide Resistance Survey

With the recent documentation of evolved herbicide resistance in New York, including Palmer amaranth (glyphosate, ALS-inhibitors), waterhemp (glyphosate, ALS-inhibitors), horseweed (glyphosate, ALS-inhibitors, paraquat), lambsquarters (bentazon), Cornell wants to better understand the current “state of the state” with respect to herbicide performance and failure. Specifically, we are surveying growers/land managers/crop consultants/extension specialists/industry personnel, across cropped (e.g. agronomic, vegetable, fruit), ornamental/horticultural (e.g. Christmas tree farms, golf courses), and non-cropped (e.g. industrial, roadsides) systems in NY to describe the distribution of herbicide resistance in the state. This survey is VERY SHORT and should be QUICK to answer. It is also COMPLETELY ANONYMOUS. Your responses will help Cornell weed scientists plan future research and extension projects. Please access the survey using the link below:

https://cornell.ca1.qualtrics.com/jfe/form/SV_a2F9urYchjpl5Ay

“Local Foods For Schools” Sponsored Opportunity

CCE Harvest NY’s Regional Farm to School Coordinator Program is working with NYS Department of Education to support schools participating in the [USDA Agriculture and Marketing Services Local Food for Schools Cooperative Agreement Program](#). Local Foods for Schools is a USDA funded program intended to help schools deal with the challenges of supply chain disruptions brought on by the pandemic. The program is designed to strengthen the food system for schools by helping to build a fair, competitive, and resilient local food chain, and expand local and regional markets with an emphasis on purchasing from historically underserved producers and processors. Schools must use funds received through this program to purchase unprocessed or minimally processed domestic, locally grown foods from local producers, small businesses, and socially disadvantaged farmers/producers for use in the school meals programs. In NY State the program is administered by NYS Department of Education. Cornell Cooperative Extension - Harvest NY is the technical assistance provider.

If you would like your farm or food business information shared with schools, please complete the survey linked below by **Monday, November 14th**. The survey asks about your business, the products you grow, raise, produce, or distribute, and what part(s) of the state your products are available, and should take about 5 minutes to complete.

[Complete the Survey Here](#)

Please contact Cheryl Bilinski with questions: cbt32@cornell.edu

Meeting Title	Farm Food Safety Meeting
Date	December 5, 2022
Time	9 AM – 4 PM
Location	CCE Wayne, 1581 Rte. 88N, Newark, NY 14513
Cost	\$15 per person, includes lunch
Contact for Info/Registration	Pre-registration is required by November 30, 2022. Email Kimberly Cummings at kjc259@cornell.edu or call 315-331-8415 to pre-register. Questions? Contact Robert Hadad at 585-739-4065
Brief Description of Meeting	See article in this newsletter. See flyer here: https://rvpadmin.cce.cornell.edu/pdf/event_new/pdf97.pdf

Meeting Title	LOF Advisory Meeting
Date	December 16 th , 2022
Time	10 AM – 3 PM
Location	Ogden Town Hall 269 Ogden Center Road Spencerport, NY 14559
Cost	.Free
Contact for Info/Registration	Please Pre-register for lunch counts at: https://lof.cce.cornell.edu/event_preregistration_new.php?id=1710 Questions? Contact Craig at 585-735-5448 or cjk37@cornell.edu
Brief Description of Meeting	See article this issue or go to: https://lof.cce.cornell.edu/event.php?id=1710

Every effort has been made to provide correct, complete, and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide. Copyright 2022. All rights reserved. No part of this material may be reproduced or redistributed by any means without permission. Cornell Cooperative Extension provides equal program and employment opportunities. **The Lake Ontario Fruit Program is a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extension Associations in Monroe, Niagara, Orleans, Oswego and Wayne counties.**

Cornell Cooperative Extension

Lake Ontario Fruit Program

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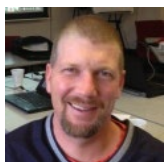
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Contact Us

Fruit Notes

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Fruit Specialists



Craig Kahlke | 585-735-5448 | cjk37@cornell.edu

Team Leader, Fruit Quality Management

Areas of Interest: Fruit Quality and factors that affect fruit quality before, during, and after storage.

Crops: Blueberries, Raspberries / Blackberries, Strawberries, Apples, Apricots, Cherries, Nectarines, Peaches, Pears, Plums



Mario Miranda Sazo | 315-719-1318 | mrm67@cornell.edu

Cultural Practices

Crops: Blueberries, Raspberries / Blackberries, Strawberries, Apples, Apricots, Asian Pears, Cherries, Currants, Gooseberries, Nectarines, Peaches, Pears, Plums



Janet van Zoeren | 585-797-8368 | jev67@cornell.edu

Integrated Pest Management (IPM)

Areas of Interest: IPM of tree fruit and berry pests, biological control, pollinators.

Crops: Blueberries, Raspberries / Blackberries, Strawberries, Apples, Apricots, Asian Pears, Cherries, Currants, Nectarines, Peaches, Pears, Plums

For more information about our program visit us at lof.cce.cornell.edu