



**“Fruit Facts” – Wednesday, June 5<sup>th</sup>, 2024**  
**Mario Miranda Sazo, Janet van Zoeren and Anya Osatuke**

**Don't forget to join us every Wednesday for Berry Office Hours, 8:30-9:00am**

Berry office hours will continue weekly until July 3, 2024. Drop in for an informal conversation about berry production with Laura McDermott and Natasha Field of the Eastern New York Commercial Horticulture Program, and Anya Osatuke of Harvest New York.

[Join Zoom Meeting Link](#) Meeting ID: 962 9520 5493, Passcode: 12345

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**TOMORROW Thursday Starts the 2024 Virtual Orchard Meetups Series**  
**‘Water Wisdom: Navigating Tree Fruit Production Through Drought and Deluge’**  
**Every Thursday from June 6 to June 27**  
**4:00 PM (PDT) - 7:00 PM (EDT)**

Our fourth series will focus on **"Water Wisdom: Navigating Tree Fruit Production Through Drought and Deluge"**. Over the past decade, growers have experienced unpredictable rainfall, water availability challenges, droughts and deluges. We want to explore methods for adapting to these challenges and discuss alternatives for efficient irrigation practices, including advances in irrigation technologies that help growers produce high quality fruit.

In addition to the primary speakers, viewers are invited to share solutions, ask questions, and interact with the specialists and grower panelists. Preregistration is not required to attend. To join, simply go to [the Meet-Up Zoom Site](#)

<https://treefruit.wsu.edu/event/2023-virtual-orchard-meetup-summer-series-managing-the-uncontrollable/2024-06-06/>. If you can't access, copy and paste the URL in your browser. <https://bit.ly/2024-virtual-meetup>

**Topics**

- [JUNE 6: Trends in Water Availability](#)
- [JUNE 13: Role of Water in Tree Fruit Physiology & Quality](#)
- [JUNE 20: Smart Watering: Practices for Irrigation Management](#)
- [JUNE 27: Water Wisdom Unplugged: Panelist Q&A](#)

While each meeting builds off the one preceding it—and we hope you can attend all three—they also function as "standalone" meetings if you are not able to attend them all. You can download and import the following [iCalendar \(.ics\) files](#) to your calendar system.

Whether you are a fruit grower with ample experience, one that has modest experience, or one that is just getting started, Virtual Orchard Meetups will be the right setting for you to ask questions and find alternative solutions.

## Announcing the Second WNY Bilingual Fruit School about ‘Soil Health and Beneficial Fungi’

Tuesday June 18<sup>th</sup>, 4-7pm

Orleans County CCE Office  
12690 NY-31, Albion, NY 14411

Join the members of CCE LOFP, CCE ENYCP, and Cornell Soil Health Program for a bilingual training on the basics of soil health, the potential benefits of mycorrhizal fungi, and an update on the current project status of our SARE grant on orchard mycorrhizal products.

This meeting will be hosted in **both Spanish and English** for farmworkers, beginning orchardists, and experienced orchard managers wanting to learn about the basics of soil health and mycorrhizal fungi within the orchard.

Light refreshments will be served at the conclusion of the meeting for an opportunity to socialize together. Registration is required, the event will be **limited to 40 participants in each session**.

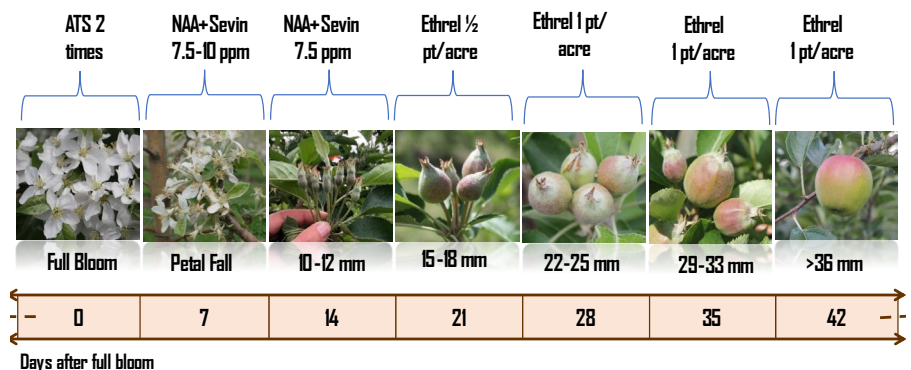
For more details about the educational program, speakers, and **pre-registration** (deadline is Sunday June 16), please visit: <https://lof.cce.cornell.edu/event.php?id=1948>

### To Do Today

- **Don't forget to mark your calendar and plan to attend the first 2024 virtual orchard meetup tomorrow Thursday June 6 at 7pm EST.** We have secured the participation of two excellent speakers (Drs. Denise Nielsen and Kirti Rajagopalan). The short presentations will be followed by a live conversation with invited US and Canadian grower panelists representing all the main fruit regions of North America. Please plan to attend and join the virtual meetup tomorrow Thursday, June 6 at 7pm, EST.

- **Chemical thinning has finished! – Now is the time to begin ethrel sprays for return bloom for strongly biennial cultivars like Honeycrisp** (same program can be started later for Fuji as its flower initiation/formation starts after Honeycrisp). To spray more safely at the current fruitlet size, you should avoid/skip the heat with temps close or above 80°F for the return bloom spray.

### Spray program to thin and enhance flower formation in Honeycrisp

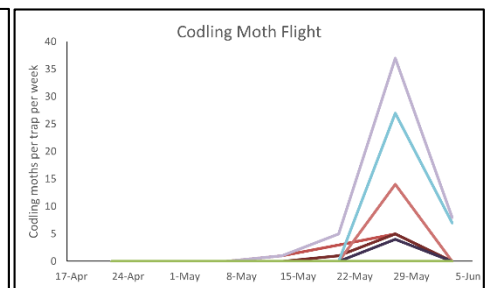
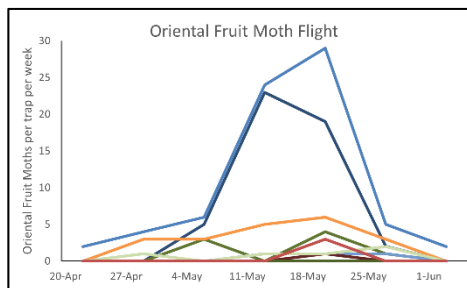


- **Calcium (Ca) accumulation occurs during the entire fruit growth period from petal fall to fruit harvest:** In addition to having proper soil pH and maintaining “calm” trees, a foliar Ca spray program is essential for bitterpit susceptible cultivars such as Honeycrisp. We have been recommending 3 to 4 cover sprays of 1 to 2 lbs of calcium chloride (78% CaCl<sub>2</sub>) or its equivalent per 100 gallons (dilute basis) at 14-day intervals, beginning 7 to 10 days after petal fall, followed by 2 additional sprays of 3 to 4 lbs of calcium chloride per 100 gallons at four and two weeks prior to harvest. It is important to keep in mind that complete coverage of fruit is essential and more frequent spray is more important than exact timing of spray. Calcium chloride cannot be mixed with oil.



- **You can chemically defruit one-year old trees to achieve sufficient leader growth and canopy development this 2024 season:** For newly planted trees where you desire to totally eliminate the crop try the thinning rates as suggested by Dr. Robinson in the past. Review previous *Fruit Facts* (sent recently on Saturday June 1) for chemical thinning program recommendations for de-fruiting of young trees.
- **Don't rub the buds below the main shoot after planting:** We are not recommending this anymore. Wait until the 2-3 shoots (below the selected leader) have 4-6 leaves and clip them to two fingers length. This technique should be conducted before June 15 to minimize competition with the leader. By leaving two-three short stubs below the ring you will have renewal surface the following seasons and blind wood situations will be eliminated. It is imperative that you produce short, planar fruiting units (all along the trunk!) as we plant trees closer and closer in the in-row spacing.
- **Don't forget the "3 Ts" of corrective pruning:** After planting remove anything that is **Too** long, or **Too** thick, or **Too** narrow.
- **Maximize VERTICAL leader growth:** Leader growth is maximized when it is always well supported to the trellis by a rubber band or a wire loop. With young weak trees that have still a crop the unsupported terminal portion of the leader above the last wire should be defruited for maximum shoot growth and good lignification during years 2, 3 and 4.
- **Use your labor and time wisely and multitask effectively:** Cornell research has shown that blossom removal and removal of fruitlets (at 18.9mm fruit diameter) allowed the leader to put on 20% more growth the year of planting. This research found that there is not difference between blossom removal and small fruit removal suggesting that the window between blossoming and early fruit set is suitable for removing potential fruit that could interfere with tree growth.
- **Watch for powdery mildew.** We have begun seeing mildew symptoms in many orchards. Some options for PM control include Flint extra, Inspire Super, Luna Sensation, Merivon, Miravis, Rally, and others.
- **Apple scab** foliar symptoms began showing up in hotspot blocks this week. Scout your blocks, and keep a map of where you are seeing scab symptoms to know where to focus management efforts for secondary scab infection. Products that will help control both scab and powdery mildew include Inspire Super, Merivon and Luna Sensation.
- **Fire blight** blossom blight symptoms also beginning to show up in some blocks. Many of the fire blight strikes that I have seen so far do not appear to be very actively oozing. Prune those out now before we get a rain to trigger further infections.
- **Wolly apple aphid** can be controlled by Movento, Senstar, Sefina or Sivanto at this timing. You will need to use a penetrant with many of these products, so be sure not to use that combination if you are using Captan for apple scab management 10 days before or after the WAA application.

- **Codling moth and Oriental fruit moth** first generation flights are finishing up. No action required at this time.



## Pear

- **Fabraea leaf spot.** If you have had Fabraea in your peach block previously (note Bosc is especially susceptible), you will want to keep trees covered now through July 4<sup>th</sup>. Options include Topsin M, Ziram, Manzate and Syllit.
- **Pear psylla.** June is a great timing to remove water sprouts from your pears trees in blocks susceptible or at threshold for psylla. This will remove their best summer food source, keeping populations in check. For summer monitoring, examine ~ 10 recently expanded shoot leaves per tree on ~5 trees per block. The action threshold during the summer is an average of 1.5 nymphs per leaf. If a spray is necessary, be aware that most of the products that are effective against psylla will have off-target effects on natural enemies.

## Stone Fruit

- Watch for bacterial blast symptoms in **all** stone fruit trees. Bacterial blast appears similar to “fire blight of stone fruit”, and is caused by a different bacterial pathogen. Bacterial blast occurs when freezing temperatures during bloom allow an opening for the bacterial to enter the tree. There is currently no management step to take if you have bacterial blast at this timing – make sure to make a map of where to go to later this summer to prune cankers out.
- **Peach Diseases (rusty spot, bacterial spot, brown rot):** Captan, Miravis, Inspire Super, and Merivon will control brown rot and peach scab. Be sure to rotate active ingredients to delay resistance. The addition of a copper (i.e. Cueva) will help blocks with a history of bacterial spot.
- **Oriental fruit moths** is a pest of major concern for stone fruit production. This week is the best timing to control the first generation caterpillars – Assail, Altacor, Delegate, Exirel and Verdepryn offer excellent control.
- **Remember to keep your trees healthy if they are being defoliated by peach leaf curl.** Avoid heavy cropping, keep well irrigated, and continue to manage those blocks for foliar diseases even if there will be no fruits.

## *On the Horizon*

**Irrigation reminder for the orchard as we finished the month of May/just started the month of June for maximum fruit size and tree growth!** By now you should be ready and well prepared to irrigate if we suddenly change to warmer and drier weather conditions, , which can cause significant water deficits. We’re in the middle of cell division and about to start cell expansion, water shortages at this point can be critic and hard to recover later on the season.

**Frequency of irrigation depends on soil type:** With sandy soils, water should be added either daily or every 2 days. With silt or clay soils, the daily amount of water needed can be added up for several days.

**Remember, if irrigation fails, nutrition fails.**

**Irrigation reminder for the on-farm nursery and the rubbing of sucker growth that occurs on the rootstocks:** Ideally, nursery tree height by now should be around 17-20 inches above the ground level. De-budding of the scion shoot should start happening in the next few weeks. Be ready!

**Summer disease management will begin sooner than we would like!**

- **Black, white, and bitter rots, along with sooty blotch and flyspeck** make up the “summer diseases”, which will be on our minds in a couple weeks. Each diseases is slightly different, but in general, products with efficacy against the summer diseases include: **Aprovia, Flint Extra, Inspire Super, Luna Sensation, Merivon, Pristine, and Sovran.**
- Be aware of **Marssonina leaf blotch**, which causes yellow leaves with small dark irregular blotches, followed by rapid defoliation (see image at right). Marssonina responds to similar conditions and fungicides as does apple scab, but often shows up later in the summer when you may have a gap in your fungicide program, or in varieties that are less prone to scab so may receive a limited spray program. There are no labeled fungicides for Marssonina in New York, but many of the products that you use for scab will also help manage Marssonina (especially effective products include Captan, Mancozeb, Luna Sensation, Luna Tranquility and Merivon).



### Causes of Unhealthy Strawberry Plantings

In the Northeast, we have seen numerous strawberry plantings collapse due to a combination of soilborne diseases. Many of these plantings appeared healthy in the autumn, but are showing poor vigor and reduced fruit sizing this growing season. For soilborne diseases, we recommend collecting the harvest this year but not overwintering plantings if their current vigor would not be profitable a second year. For this current year, preventing excessive water pooling in soil by reducing irrigation and removing plastic mulch can prevent the problem from getting worse. A long rotation-- 7 to 10 years-- is the only proven cure for moving away from soilborne diseases in strawberries.

Another cause of poor vigor in plantings that we have observed, is cyclamen mite. The cyclamen mite lives in the smallest emerging buds of the strawberry plant and nibbles at the growing leaves and fruits, causing a shrunken, crinkled, torn, and cupped appearance on the leaves. Mites can be diagnosed by examining the emerging buds with a 30X hand lens, such as a jeweler's loupe.

**Did you know that in Japan the apples are not eaten as a snack but as a delicacy – and are often sold as individual specimens? As some of you already know, Japan is a country tied to tradition. If it is customary to do things in a certain way, then that has a particular significance, and it is usually done patiently and without complaining.**

- The peculiarity of the Japanese culture has had a significant impact on the cultivation of apples in the island nation and has raised them to the status of a cultural asset.
- After the Satsuma mandarin (770,000 tons produced and consumed annually), the apple (750,000 tons) is the most popular fruit of the Japanese.
- *Malus sieversii*, the Asian wild apple, originally came to Japan from Central Asia, albeit the long way round via Europe and the USA.
- In 1879, the Japanese government imported many different varieties from North America, giving rise to the birth of apple growing in Japan.
- On average, a hand-cultivated apple orchard in Japan is less than one hectare or roughly two acres in size.
- In the northern prefectures of Japan, on many apple orchards the fruits are **double-bagged** in early July, about 50 to 60 days after full bloom. In this area, the main reason behind this is to improve the shelf life of the fruit, while in other prefectures located further south, it is all about fruit color.
- The outer bag is removed 35 days before harvest, and the inner one, which is coated with fungicides, one week before.
- To protect the apples from sunburn in the final days, large nets are spread out over the trees to reduce the intensity of the sunlight.
- On average, a Japanese orchard worker can bag between 100 and about 400 apples per hour, which even on a medium-sized apple orchard amounts to more than 1,000 labor hours.

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 2024. 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.**