



“Fruit Facts” – Sunday, June 2nd, 2024
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This 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)

Since 2021, the North American Summer Virtual Meetup Program has brought together growers, researchers, Extension, and government to have a conversation about important tree fruit topics. Connecting industry leaders across North America, over 20 experts are involved in these 90-minute online forums, interacting with more than 1,000 participants.

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.

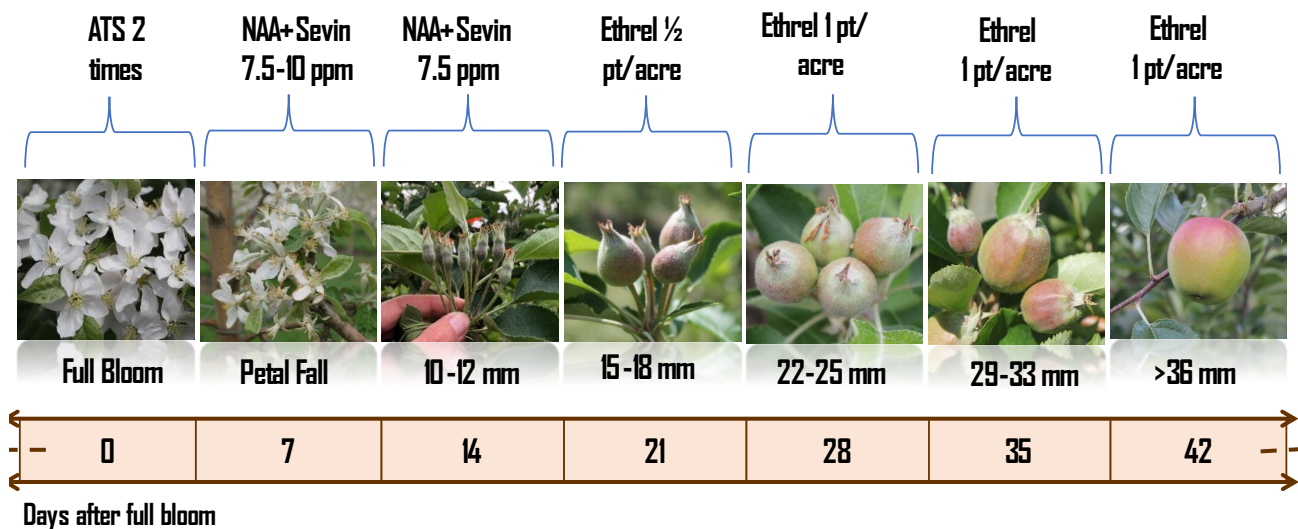
Whether you are a fruit grower with ample experience, one that has modest experience, or one that is just getting started, Virtual Orchard Meetups will be the right setting for you to ask questions and find alternative solutions.

To Do Today

- **Mark your calendar and plan to attend the first 2024 virtual orchard meetup this coming Thursday June 6 at 7pm EST.** This past winter season we spent a significant amount of time planning the coming 2024 virtual orchard meetup series this summer (every Thursday on June 6, 13, 20, and 27, all virtual meetups at 7pm, EST). The first meetup will be hosted by my colleague Bernardita Sallato from WSU and me. On Thursday June 6, 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 this Thursday, June 6 at 7pm, EST.

- **Chemical thinning spray program has almost finished - last rescue thinning sprays were applied on Friday and early this weekend along the lake.** We hope growers that did not start their thinning program earlier and waited until recently will have good thinning response despite the low temps and mild carbohydrate deficits experienced over the last few days. Fortunately, we are seeing good thinning results and fruitlet size separation in the cluster is more obvious by now. There will be more notes about crop load management later at the beginning of the hand thinning period later...
- **Time to begin ethrel sprays for return bloom by the end of this week/over the weekend/early next week for strongly biennial cultivars like Honeycrisp (same program can be started a week later for Fuji as its flower initiation/formation starts after Honeycrisp).**

Spray program to thin and enhance flower formation in Honeycrisp

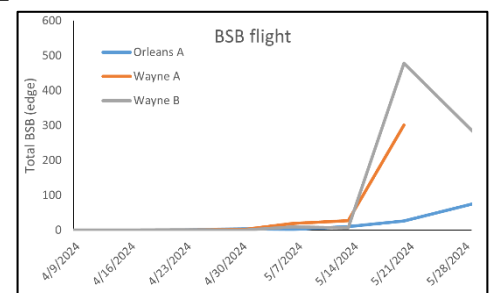
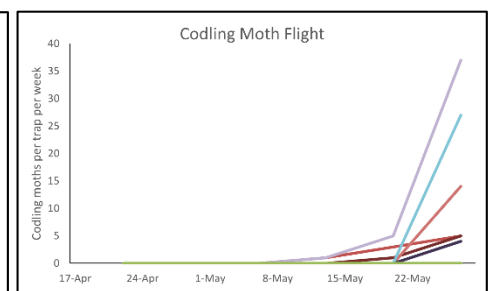
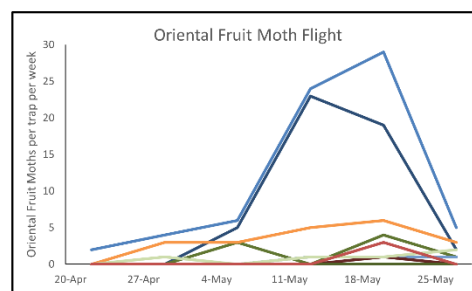


- **Berming new stone fruit orchards:** Please remember that we recommend that all stone fruit species be planted on 12-18 inch high berms. Stone fruit trees are not very water tolerant and the additional height give more depth to the water table especially perched water tables that occur in the spring and fall. In addition, root growth is thought to be improved by providing additional oxygen provided by berming.
- **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% CaCl₂) 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.
- **Target manual blossom removal and de-fruiting:** You should intensively manage and manually remove terminal flowers. Then you can chemically defruit one-year old trees to achieve sufficient leader growth and canopy development this 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.

- **Chemical thinning program for young trees:**
 - **For newly planted trees** where you desire to totally eliminate the crop try a high rate of Maxcel (64 ounces) + Sevin (2pts) + Oil (1pt) /100 gallon TRV dilute when fruit size is 8-10mm. Or , as soon as the bees are out, begin repeated heavy doses of carbaryl (2 pints/100 gallons) tank-mixed with Regulaid (1 pint/100 gallons)
 - **For 2nd year trees** where we want a small crop use only hand thinning and the Cornell young tree thinning guide to adjust crop load
 - **For 3rd year trees** use Sevin alone + follow-up hand-thinning
 - **For 4th year trees** use 1/2 of our suggested full rate of NAA + Sevin or Maxcel + Sevin
 - **For 5th year trees** use 75% of a full rate of NAA + Sevin or Maxcel + Sevin
 - **For 6th year trees** use a full rate of NAA + Sevin or Maxcel + Sevin
- **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.
- **Codling moth larvicides best timing for application is now** if you have not already applied a "worm spray" in the past few days. Good options include Dipel, Juvelin, Altacor, Exirel, Verdepryn, Delegate, Assail, Avaunt, Imidan, etc.
- **Black stem borer** flight continues. The best management strategy is to keep trees healthy, as bsb will only go to stressed trees but never to completely healthy trees.

- **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.

- **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.



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 4th. Options include Topsin M, Ziram, Manzate and Syllit.

Stone Fruit

- Watch for bacterial blast symptoms in cherry and peach 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. Bacterial blast symptoms should be pruned out later this summer whenever we experience multiple days of hot dry weather – be sure to prune at least 6-8” below any symptoms to make sure to remove all pathogens.
- **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!

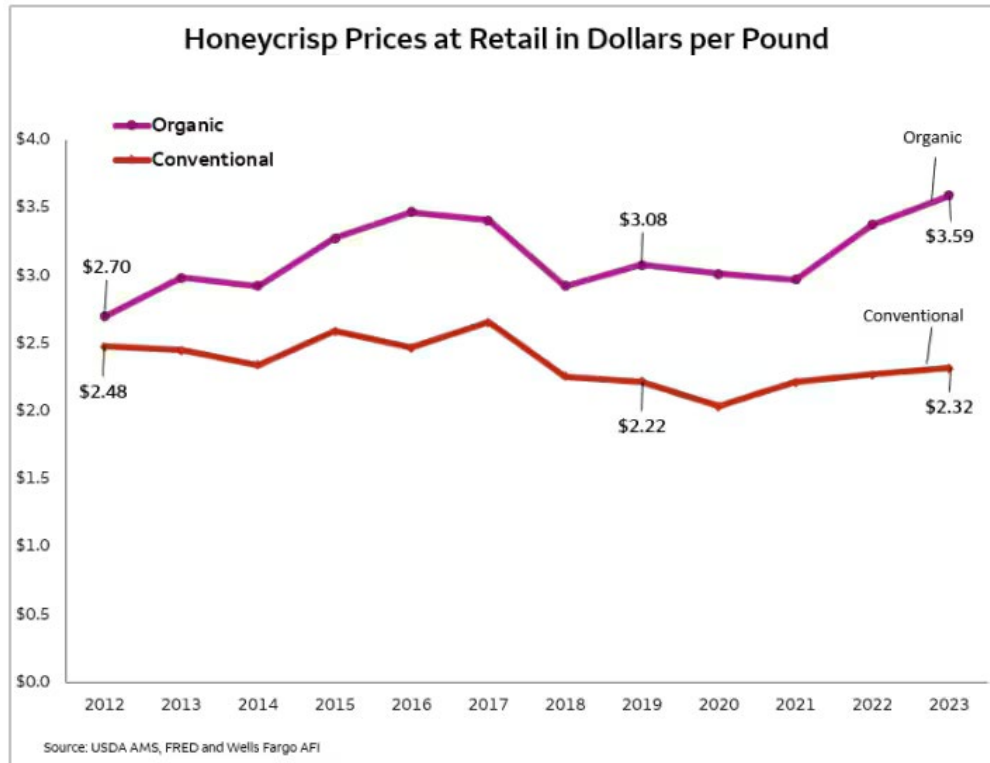
- **Black, white, and bitter rots, along with sooty blotch and flyspeck** make up the “summer diseases”, which will be on our minds in a couple weeks. Each diseases is slightly different, but in general, products with efficacy against the summer diseases include: **Aprovia, Flint Extra, Inspire Super, 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).



Good to Know

Did you know that the retail price of 'Honeycrisp' apples has not increased dramatically when compared to increases over the last decade?

Even with all the input costs increasing and a couple of years of below-average yields, the retail price of 'Honeycrisp' apples has not increased dramatically when compared to increases over the last decade. The 2023 retail price for conventional 'Honeycrisp' apples was 4.5% higher than the 2019 price, though the organic price moved up by a more noticeable 16.6% in the same time period. Looking back at the Honeycrisp price history, we see that it has had a big cycle down. The 2019 price represented the lower part of the cycle as supply caught up to the demand (source: Dr. Michael Swanson, CAE, Wells Fargo Agri-Food Institute).



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.

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