



“Fruit Facts” – Wednesday, May 15th, 2024
Mario Miranda Sazo, Janet van Zoeren and Anya Osatuke

Berry Office Hours every Wednesday, 8:30-9:00am

Berry office hours begin today, and 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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One tap mobile
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**Recordings are Available for the Western NY & Capital District Petal Fall Thinning Meeting
conducted on Monday May 13**

<https://youtu.be/G9AWpbRZuDk>

A recording of the Petal Fall Thinning Meetings providing updates, crop damage assessments, and recommendations.

[00:00:00](#) - Welcome & Intros - Mike Basedow (CCE-ENYCHP)

[00:00:48](#) - Phenology Updates in the Saratoga area - Mike Basedow (CCE-ENYCHP)

[00:03:52](#) - Phenology Updates in Western NY - Craig Kahlke (CCE-LOF)

[00:06:12](#) - Phenology Updates in Western NY - Mario Miranda Sazo (CCE-LOF)

[00:12:13](#) - Phenology Updates in Wayne County, NY - Jim Eve (consultant, Eve Farm Service, LLC)

[00:15:35](#) - Phenology Updates in Wayne County, NY - Vaughn Gingerich (consultant, Lake Ontario AG Consulting, LLC)

[00:17:57](#) - Thinning Recommendations at the Petal Fall Timing for both regions - Dr. Terence Robinson, Cornell
Includes Q & A

Bilingual Twilight Meeting to be held May 29th at Orchard Dale Fruit Farm in Orleans county

Bring your workers to join us on May 29th at Orchard Dale Fruit Farm in Orleans county from 5:30-8pm.

The event is a joint effort between LOF's Janet van Zoeren and Mario Miranda Sazo and NYS IPM's Anna Wallis. It will feature both educational IPM trainings, along with time for farm employees to socialize and learn from each other.

Educational programming will cover scouting and monitoring demonstrations, along with some theory on the basics of IPM and the importance of farm employees as on-farm scouts and to provide early-warning of potential insect pests and diseases. All programming will be given in both English and Spanish, providing an opportunity also for workers to listen and learn the other language.

Snacks and soda will be provided for 30 minutes of social time before and after the educational programming.

Everyone is welcome to attend! Registration will be required so we can provide sufficient food, but attendance will be free. Watch for registration link in upcoming email blast.

Twilight Meeting to be held May 30th at Coulter Farms in Niagara county

This series of monthly meetings will examine seasonal changes in tree fruit and berry crops, demonstrate scouting techniques, and discuss integrative pest management solutions to maximize the health and productivity of berry and fruit plantings.

Join us from 7-8:30pm on **Thursday May 30th**. Please **arrive at 6:45pm** for pizza and soda. Thank you to Valent for providing refreshments!

Location: Coulter Farms, 3871 N Ridge Rd, Lockport NY.

1.5 DEC credits will be offered in categories 1a, 10, and 22.

Feel free to bring pictures or descriptions of pests you are concerned about on your farm.

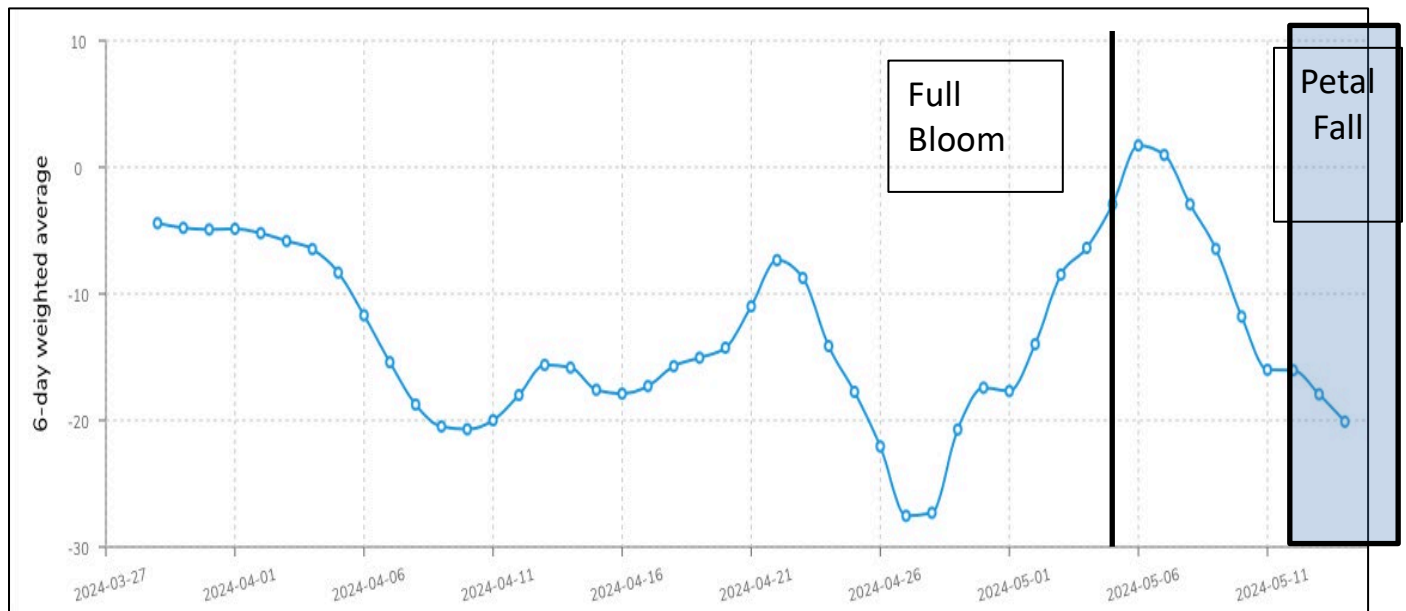
No pre-registration required; **event is free to attend.**

To Do Today

Main remarks of petal fall thinning meeting conducted on Monday:

Western NY region	Petal fall thinning
Inland (warmer sites, earlier ones)	Window for PF spraying opened on Sunday or Monday and will be closing TODAY (Wednesday May 15)
Lake sites	Window for PF spraying starts TODAY (Wednesday) and will be closing by Saturday or early Sunday.

Carbohydrate balance in the tree: There will be a good carbohydrate deficit around minus 20 (review the graphic for a carbohydrate balance in Sodus obtained for Monday May 13). It will be conducive to good petal fall thinning and it is advisable to spray at this time if you have in average 2-3 good fruitlets growing in the cluster. The petal fall spray will be safe at this time.



Petal fall thinning for 2024:

- This year daytime temperatures will be in the mid-60's to mid 70's, but nighttime temperatures will be in the mid 50's with relatively low light levels due to cloudiness.
- The weather will result in a **moderate carbohydrate deficit** which will give **good petal fall thinning** (little risk of overthinning)
- The petal fall spray is an essential component of this year thinning program.
- A full dose of either NAA+Sevin or NAD+Sevin is needed in blocks with a strong set.
- Alternatively use Maxcel+Sevin with Gala if temperatures are in the 70's.
- Alternatively use Maxcel+Accede on a trial basis with Gala.

Pollination/bee activity in 'Honeycrisp' blocks located along the lake in Wayne: In the last two days we had excellent bee activity in several Honeycrisp blocks that were still 30-40% at bloom. I am sure there was a nice crop pollinated in several lake sites in Wayne (no doubt about it!).

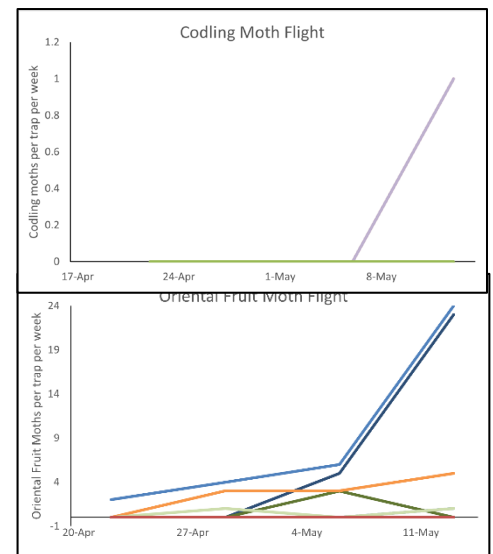
Suggested Chemical Thinning for Honeycrisp: Chemical thinning of 'Honeycrisp' is essential to achieve both annual cropping and the desired fruit quality of this variety in 2024. To successfully control biennial bearing, Honeycrisp needs very early thinning at bloom (window already closed) and petal fall (spray window started opening this past Sunday or Monday and will be closing today; for lake sites the PF window started opening today (May 17) and will close this Saturday or Sunday am!)

- **Petal Fall (fruits at 5-6mm)**
 - **NAA 4oz/acre + Sevin (1pt/acre)**
- Fruits at 11-13 mm
 - NAA 3oz/acre + Sevin(1pt/acre)
- Fruits at 15-20 mm (if needed)
 - NAA 4oz/acre+ Regulaid (1pt/acre)
 - Accede+Maxcel

Suggested Chemical Thinning for Gala:

- **Petal Fall (fruits at 5-6mm)**

- **NAA 4oz/acre + Sevin (1pt/acre)**
- **Macel 128oz/acre+Accede 400ppm**
- Fruits at 11-13 mm
 - Maxcel 128oz/acre + Sevin(1pt/acre)
- Fruits at 15-20 mm (if needed)
 - Accede+Maxcel
- **A last-minute call for petal fall thinning in blocks that were assessed for freeze damage and there is the need for thinning this week:** This year many of you can't leave some blocks without a PF thinning spray. No excuses! Please recall what we discussed during the last day of our 2nd WNY annual fruit conference in Rochester in February 9, 2024; (1) undersized and overcropped trees are worth nothing these days with the current economy, (2) chemical thinning (petal fall thinning windows are closing for inland sites and opening for lake sites TODAY) will be critical/very important!, (3) we are looking for a big US crop again, and **fruit quality will be more important than ever!**
- **Ongoing apple scab infection event.** Continue to keep trees covered with Mancozeb or single site products, even as we near the ending of primary scab season. **Avoid Captan as we move into thinning sprays which often require a penetrant!** I *still* have not seen scab lesions developing on leaves; I'd guess the cool weather has delayed development of symptoms. Begin to scout for early scab infections on your farm, and let me know if you see any!
- **Fire blight** infection risk remains low.
- **Codling moth** flight began this week, with a single moth trapped in in both Wayne and Niagara counties. If we continue to trap CM next week, and see a clear beginning of flight, we will set the biofix date for May 15th and use that in the NEWA model to time ovicide (Rimon, which kills eggs and hatching larvae) or larvicide (most other chemistries, which kill caterpillars) insecticides.
- **Oriental fruit moths** are flying, and numbers are quite high this year again. Today we are at ~200 degree days across the region (out of 350 to time larvicide application). With cool weather slowing OFM development it is likely that the petal fall spray timing will be too early to target OFM larvae, so you may want to hold off on lep products until 1st cover.
- Consider pesticide choices carefully while **bee hives** are in the orchard. For a reminder of which products are most bee-safe, and what products are worse when used together, view our "Bloom Pesticides – Relative Toxicity to Pollinators" cheat sheet at https://rvpadmin.cce.cornell.edu/uploads/doc_870.pdf.



Stone Fruits:

- **Peach leaf curl** has begun showing up in full force on some farms. This fungal disease thrives in cool, wet springs following a mild winter. Sound familiar? Unfortunately, the fungicide timing window for peach leaf curl has passed. If you see curling leaves in your blocks, the best approach to mitigate the damage will be to:
 1. **Be sure not to over-crop** (or maybe don't crop at all if it is severe and you can afford to leave those trees to recover)
 2. Focus on providing those trees with **proper irrigation and an extra shot of nitrogen fertilizer this spring.**
 3. If trees are able to re-foliate this summer, don't worry, because the leaf curl fungus does not have a secondary infection period (so the regrowth should not be infected).
 4. If trees are not able to re-foliate this summer, don't worry, because that just means the tree is saving its energy to come back strong next year.
 5. **Mark your calendars now to be sure to apply a fungicide on all curly leaf trees this fall after trees go**

dormant (usually ~November) and again in the spring before buds begin to swell (usually ~March). Fixed copper fungicides have some efficacy, but your best defense will be chlorothalonil or ziram (as market allows).

6. **To recap, tree health is your main concern now, and a well-timed fungicide will be critical in the fall and/or spring.**
- **Oriental fruit moths** are flying. We have an ~April 30^h biofix date across most of the region (see graph above – orange line is a trap set in a peach block). For now, we are at ~200 degree days across the region (out of 350 to time larvicide application).

Berries:

- Scout strawberry blossoms for tarnished plant bug nymphs. The threshold for insecticide application is when 4 out of 15 flower clusters are found to have at least one nymph. To count nymphs, slap a flower cluster against your open palm and they will fall out.
- In blueberries, put out cranberry fruitworm and/or cherry fruitworm traps to monitor this migratory moth, whose larvae cause webby berries filled with crumbly frass. Hang traps for different fruitworms at least 50 feet apart, placing them in rows close to the hedgerow.
- Now is a good time to apply fertilizer to blueberry and bramble plantings.

On the Horizon

- **Why is early thinning so critical to control or reduce 'seed load' in Honeycrisp?:**
 - This is due to the high number of seeds that are produced when flowers are fertilized. Pollination of Honeycrisp flowers that opened earlier this week were just fertilized yesterday.
 - Seeds produce an anti-flowering hormone named gibberellin (GA). GAs are produced in large quantities in the seeds, so an important goal in chemical thinning is to control 'seed load'.
 - Petal fall thinning is critical to remove fruitlets as early as possible to reduce the seed number per tree and therefore gibberellin concentration in the buds for next year.
 - By now growers should start spraying NAA+carbaryl at petal fall when fruitlets are 5-6mm. If conditions are ideal this can accomplish the required thinning but, in most years, an additional spray is required when fruitlets are 11-12mm of NAA+carbaryl.
- **If using mating disruption for Dogwood borer or the Peach tree borers,** hang those disruptors soon (or now). Larvae are beginning to pupate, and you will want to hang disruptors before the beginning of the moth flight, or else disruption is a waste of your money.
- Have a plan in place for apple **petal fall insecticides**. These could go on as early as this weekend/next week depending on block. **If there are still bees in your blocks, DO NOT apply insecticides until hives have been removed and wild bees are not foraging on apple blossoms.**
 - **Plum Curculio** management begins as soon as petals are completely off all the trees in the block. Materials effective against PC include: Exirel, Imidan and Verdepryn (also control OFM), Actara (also controls Rosy apple aphid), Assail, and Avaunt.
 - **Wolly apple aphid** can be controlled by Movento, Senstar Sefina or Sivanto at this timing.
 - Include Proclaim, Rimon, or Intrepid in the petal fall spray if you have a history of high **Oblique Banded Leafroller** damage.
 - **San Jose Scale** can be controlled by Movento (with a penetrating adjuvant), Sivanto, Esteem or Centaur, generally to be applied around the PF or 1st cover timing.

Good to Know

A short update of the digital technology work with the use of a drone technology during bloom conducted at one on-farm trial located in Alton, Wayne:

Yesterday we conducted a second ground-truth evaluation for a blossom scan conducted with the Aurea drone technology. We have been collaborating closely with Ross Ganz (VP/Owner of Lagasse Machine and Fabrication Inc., in Lyons, NY) who arranged/paid the services of a drone pilot (CNY drone services) on Tuesday May 6 (for one flight in a Wayne block at Cherry Lawn Farms). The CNY drone service company sent the file to the Aurea drone company in the Netherlands the same day after finished the scan. Ross provided the blossom density map (Figure 1) produced by Aurea to the Cornell team on Monday May 13. We were able to conduct a quick ground-truth evaluation of the blossom variability map (only for green and dark red colored sections) for the Wayne site yesterday (Table 1). Our preliminary ground-truth results indicate again that the blossom variability map was very accurate at the Wayne site. More details of this work will be included/discussed during the 2024 summer tour stop to be conducted in Orleans County on August 13, 2024.

Figure 1. Blossom variability map (blossom density/cm² for green color (less/low bloom) and red color (high/more bloom) produced by Aurea drone company for one large block in Wayne County (drone flight conducted on Tuesday May 6; variability map received on Monday May 13; and Cornell ground-truth validation work conducted on Tuesday May 14).

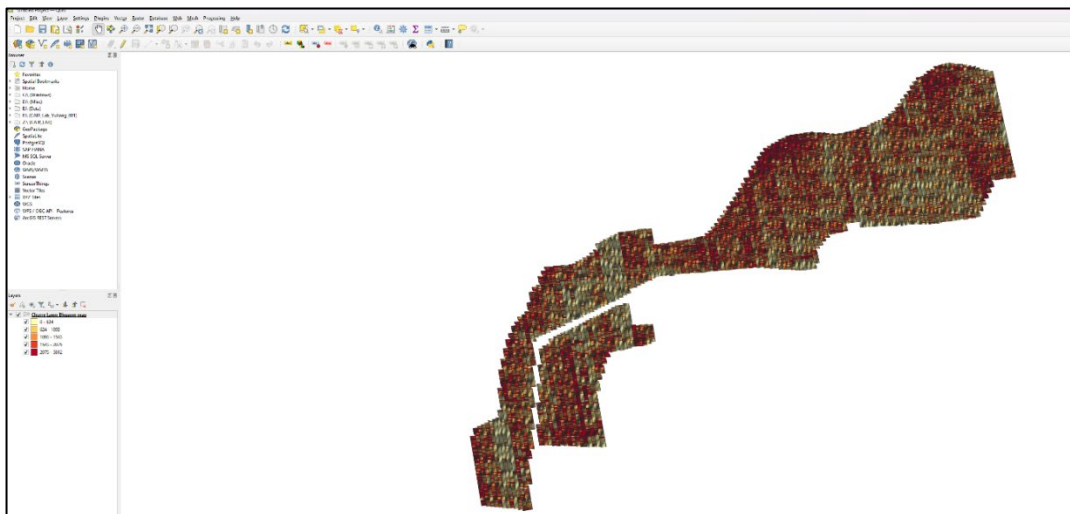


Table 1. Results of a quick Cornell ground-truth validation work conducted at one block at Cherry Lawn Farm, Wayne County on Tuesday May 14, 2024.

Tree number	Number of blossom clusters/tree (counted on Tuesday May 14)			
	Green light color (Low bloom density, color coded by Aurea map)		Dark red color (High bloom density, color coded by Aurea map)	
	Row 104	Row 127	Row 103	Row 120
1	8	39	130	83
2	12	37	140	90
3	21	28	137	127
4	15	42	152	125
5	13	39	148	95

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.