



## **“Fruit Facts” – Thursday, June 2 2022**

**Today! - June 2 at 7pm EST is the First Nationwide Virtual Meetup about Labor and AG-Technologies – You can still register!**

The link to the one-page flyer is here: [https://rvpadmin.cce.cornell.edu/pdf/event\\_new/pdf96.pdf](https://rvpadmin.cce.cornell.edu/pdf/event_new/pdf96.pdf) with the agenda that we recently began to use to announce this nationwide effort. This series of virtual meetups (7pm, EST), are **Free!**

Please register as soon as possible here: [bit.ly/orchardmeetups](https://bit.ly/orchardmeetups).

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**Plan to send your Spanish employees to the ‘Premier Spring Spanish Fruit School’ – Friday, June 17, 2022 from 12:00 PM- 4:30 PM**

**CCE Orleans County Office Location: 12690 NY-31, Albion, NY 14411**

Join the Cornell Small Farms Program, CCE Lake Ontario Fruit Program and NYS Integrated Pest Management for a Spanish Language Field day! More details in the coming issue of LOF newsletter and via Fruit Facts in the next two weeks. **Open event - No registration required!**

## **IPM Notes...Janet van Zoeren**

**Fire blight shoot strikes have been found in the Finger Lakes region, and will begin to show up any day in the Lake Ontario region, especially inland sites. Be proactive and scout for strikes beginning now.** The following management recommendations for any block where you find active shoot blight come from Kerik Cox’s blog:

<https://blogs.cornell.edu/coxlab/2022/06/01/severe-fire-blight-outbreaks-in-the-finger-lakes-begin-scouting/>.

If you find active shoot blight, apply prohexadione-calcium (Kudos, Apogee, etc.) at the highest rate for the planting (6-12 oz/100 gal). If you shoots are oozing, make a second application of a labeled liquid copper (Previsto, CS 2005, Cueva, Badge SC) product to kill/dry out the ooze. Make sure apply the PGR (prohexadione-calcium) first so that it gets first and sole access to the plant surface for maximum uptake. Allow 5 days for the apogee product to take effect. Afterwards, prune out existing and newly developing shoot blight every two weeks for the rest of the season. Remove any trees where fire blight has reached the central leader. If pruning stimulates additional shoot growth, make a second application of prohexadione-calcium at the rates described above.

**Powdery mildew** is showing up in high pressure orchards. Keep an eye out for mildew symptoms on new foliage. Some options for PM control include **Flint extra, Inspire Super, Luna Sensation, Merivon, Miravis, Rally, Sovran** and others.

### **Caterpillars.**

**Oriental fruit moth** numbers have been **extremely high** (~50 per traps in many locations) this year. Current DD accumulations based on the NEWA model predict the optimal timing to apply for OFM this year to vary between:

- **Wayne Co. lakeside sites: should cover now if you haven’t already.**
- Orleans/Niagara lakeside sites AND all inland sites: currently at 280-300DD. Spray early next week. Some options for apple include Imidan (also controls PC), Verdepryn (also controls PC), Assail, Delegate, Rimon, Altacor and Exirel (also controls PC).

**Codling moth** numbers seem to be relatively low so far this year.

- Ovicides should have gone on already. Larvicides hold off till early next week.

**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.

If you would like to use the NEWA DD model to determine whether you will need a second PC spray, input your 80% McIntosh petal fall date. As a reminder of how the PC model works, for high pressure orchards you will want to continue to re-apply a cover spray to control PC from petal fall until they complete their immigration period at 308 DD. From what I'm seeing across most of the region, you will likely need one follow up application after the petal fall spray, but it is best to calculate for yourself if you'd like to potentially save on an application!

We are still looking for populations of **fire blight, woolly apple aphid, and rosy apple aphid**. If you have any infestation/outbreak of any of these pests, please get in contact with me, and I can either collect a sample myself or put you in touch with an appropriate faculty. Much appreciated!

## **Horticultural Notes...Mario Miranda Sazo**

**Multitask, wait, and assess crop load before making final rescue thinning decisions:** Growers should conduct quick fruit count assessments per tree before making final rescue thinning decisions. In some cases, there were very good thinning results with just blossom and petal fall sprays.

**Assess your crop load for each block and be ready to make final thinning decisions:**

- If your crop load is **more than 2 times the target final fruit number** then you will need to spray a rescue spray
- If your crop load is **between 1.5 and 2 times the target final fruit number** then you will need to use your own judgement whether to spray or not spray
- If your crop load is **less than 1.5 times the target final fruit number** you won't need to spray a rescue spray

**A few things to do as you wait and get closer to the 15-18mm fruitlet stage for final rescue sprays:**

- Continue taking care of new trees and carefully look for fire blight
- Install/finish trellis, deer fence
- Start/finish grafting (train leaders/rub suckers from grafting projects you started last year)
- Check for fire blight and be diligent
- Start/finish weed sprays and nitrogen applications for on-farm nurseries and commercial blocks
- Prepare/flush irrigation lines, to mention a few things this am!

**Be ready for next week and start thinking about Ethrel sprays for return bloom for strongly biennial bearing cultivars like Honeycrisp and Fuji:**

*Dr. Robinson's suggestions for 2022*

- Start the first Ethrel spray when fruits are 16-18mm (approximately 21 DAFB). Estimated best timing could be early next week from June 6-9 in inland sites and June 9-12 for lake sites in WNY
- Spray a dose of ½ pt. Ethephon per acre
- Do not spray if temperature will be over 80's on the day of spray or the next 2 days
- It is Ok to mix with CaCl<sub>2</sub> spray for bitter pit
- All Honeycrisp and Fuji should receive these Ethephon sprays even those with a light crop (the low dose and avoiding high temperatures will result in no thinning even on light cropping trees)
- After the first spray at 7-10-day intervals apply 3 more Ethephon sprays but with a higher dose of 1 pt./acre.
- Make sure the last Ethephon spray goes on by July 1
- After July 1, I suggest adding some NAA (4oz/acre) to each spray put on in July.

**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.

**We will need another good period of warmer weather for Maxcel** to stimulate branching of whips in the orchard (also applicable to trees that were top- or side-worked last year). Please refer to past *Fruit Facts* for additional chemical branching information with the use of PGRs.

**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.

**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.

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.

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