



“Fruit Facts” – Thursday, July 22 2021

Register today for the LOF summer tour!

It will be held *in-person* in Marion/Williamson, NY on August 12th.

2.5 DEC credits offered.

For a full list of topics that we will cover, exact farm locations, timings, and to register, click below.

Registration link: https://lof.cce.cornell.edu/event_preregistration_new.php?id=1548

A big thank you to all our sponsors, who will be listed and thanked individually in the Fruit Notes and future FF issues.

Upcoming webinar: **“Why are my trees growing so poorly?”** where we will cover possible causes of tree decline.

Time: August 2, 3:00pm - 4:30pm

There is no fee to attend, but you must register at the following link by Friday, July 30th:

[Click Here to Register.](#)

1.5 DEC Credits offered.

Hosted jointly by CCE-ENYCHP and CCE-LOFP

Agenda:

2:45 – 3:05 - Credit Check in and Introduction - Mike Basedow

3:05 – 3:15 - Boring insects and tree decline- Janet van Zoeren

3:15 – 3:25 - Nematodes and their association with apple replant – Dr. Kerik Cox

3:25 – 3:35 - Could viruses be involved in poor tree growth? - Dr. Marc Fuchs

3:35 – 3:45 - Apple tree decline case studies and quality - Dan Donahue

3:45 – 3:55 - Investigating causes of apple tree decline in Pennsylvania – Dr. Kari Peter

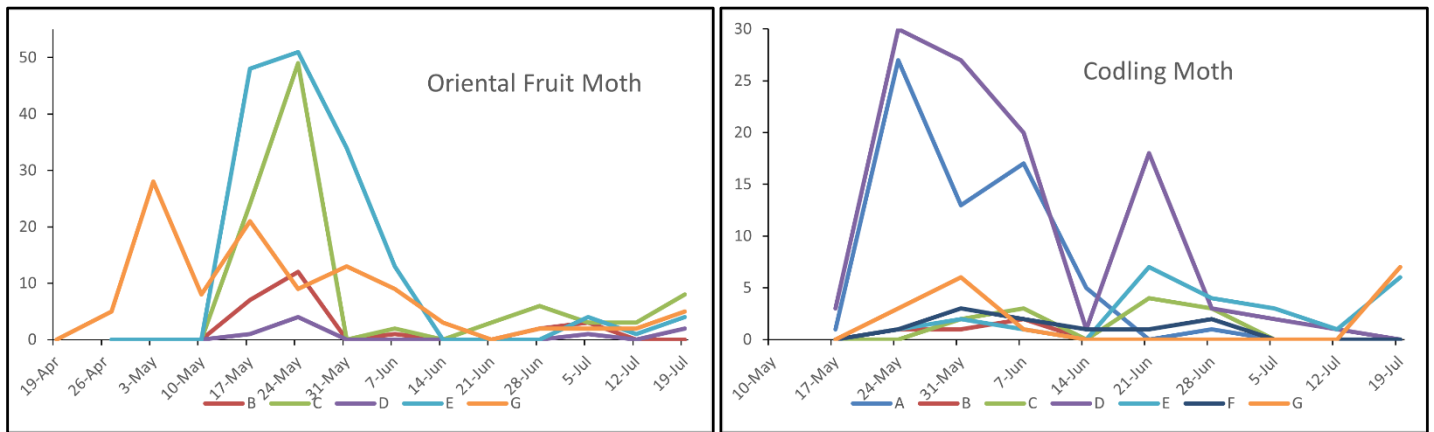
3:55 – 4:05 - Abiotic issues, such as drought and cold damage – Dr. Terence Robinson

4:05 – 4:30 - Questions and discussion

IPM Notes...Janet van Zoeren

We’ve started seeing increasing numbers of aerial **woolly apple aphid colonies**. Keep an eye out for hot-spots of these as you move through your orchard – in general an entire farm will not need to be managed for WAA, but rather hot spot varieties or microclimates may need to be kept in check. Products that can be used for WAA include Diazinon (if your market allows), Admire Pro, Beleaf, or Sivanto Prime. With all these products, be sure you use excellent coverage.

Oriental Fruit moth and **Codling moth** second generation flights are beginning in inland and high pressure locations (see graphs below). From the beginning of the second generation flight, we can again use the NEWA model, using the date of the first sustained trap-catch of the second generation (graphing can make this much easier to visualize) as the biofix. In general, with the hot weather we’ve been having, your first cover spray for the second generation will be approximately 1 week after the biofix date. *Remember to rotate products, and use a different **mode of action** to control this generation than you did in the spring!*



Summer diseases such as **sooty blotch and flyspeck** and the **rots**: as a general rule, fungicide covers for the rots would go on every 14-21 days, but this summer with all the rain we're having, those intervals should be tightened up significantly. SBFS applications can be timed using the [NEWA model](http://newa.cornell.edu) (newa.cornell.edu). To effectively use the model, you'll need an approximate petal fall date, and to input the date of your last fungicide application that was effective against SBFS. Products that are effective for SBFS include Luna Sensation, Merivon, Pristine, Sovran, Flint, and Captan+Topsin. All of your SBFS products will also help manage black, white, and bitter rots. For more information about the summer diseases, check out the NYS IPM [Apple IPM Intensive](#) recording (begins at 7:45min).

Continue to watch for **European red mite** and **two-spotted spider mites**. These both prefer hot dry weather, so hopefully the recent rains will knock them back. We have been seeing them recently while walking through the orchards.

Who has been enjoying all this rain and lush new foliage? **Aphids** and some **potato leafhoppers**. In general, these are problematic only in blocks where you are trying to grow the trees, so watch for them in young blocks and nurseries. Once trees reach terminal bud-set, these pests (along with powdery mildew) will drop off our radar.

Apple maggot is flying, although most orchards do not see problematic numbers of AM in this region. A suggested action threshold is when 5 or more adults are caught on a red sphere traps per week.

Any questions about pest management, please call or email me: jev67@cornell.edu, 585 797 8368.

Horticultural Notes...Mario Miranda Sazo

Taking care of the new shoot (scion) and promoting safe vertical growth the first year after grafting (applicable to top-work, side-graft, and beaver-graft situations). By now you should have pruned the nursing foliage exposed to the West side of the row to fully expose the scion to the sunlight in the afternoon. The scion should be supported to a vertical element with a plastic twine or similar aid. You can de-shoot and leave stubs of two-three fingers length to promote extra leader growth (don't de-shoot if you want to grow 2 leaders from one side-graft). Promalin (500ppm= 3.2oz formulated product/gallon water) applied to the tip of the leader (3-4ml/spray) can promote extra vertical growth and short dards by the end of the growing season.

Last push for additional plant growth in grafted blocks: A nitrogen foliar spray applied this week and another at the end of July will help boost additional plant growth. Use urea 3-5 lbs/100 gallons (30-40 gallons per acre). Apply the foliar N program directed to the nursing foliage and scion (whole tree nutrition approach).

Finish hand thinning of small fruited varieties like NY-1 and Gala this week: Take advantage of your platforms to get hand thinning done quickly and more efficiently this season.

We recommend that you count total fruit per tree on 5-10 representative trees in each block and reduce fruit number (via hand thinning, ideally with a platform) to the most profitable crop load (your targeted fruit number per tree). Hand thinning will be necessary in blocks where final fruit set (desired number of fruit/tree at harvest) is still relatively high in the tops of the trees.

Avoid the common mistake of excessive crop loads in years 2 to 4 which leads to too little tree growth (varieties differ in their biennial bearing tendency and this must be incorporated into the crop loads allowed on young trees).

Cultivar ¹	Growth Habit	Biennial bearing tendency	Crop load per tree after hand thinning
Honeycrisp ²	Weak growing cultivar	Biennial	2 nd year: 12-18 apples 3 rd year: 20-35 apples 4 th year: 40-70 apples
Fortune, Fuji, Golden Delicious”, Jonagold, Mutsu, Spy	Strong growing cultivar	Biennial	2 nd year: 16-20 apples 3 rd year: 25-40 apples 4 th year: 65-80 apples
Gala, Empire, Mac, Rome, Idared	Medium growing cultivar	Annual (more reliable bearer)	2 nd year: 20-25 apples 3 rd year: 30-50 apples 4 th year: 80-100 apples

¹ For **NY1 trees** which had moderate or poor growth in the first year or were planted on a weak rootstock, these trees should be de-fruited because fruits will outcompete with overall tree and shoot leader growth for carbohydrates and water.

² Please remember that early hand thinning in Honeycrisp @ 28-30mm is critical for good return bloom next year.

Continue mechanical summer pruning of 2-D Tall Spindle apple trees: We encourage growers to target their mechanical summer pruning time based on the fruit size characteristics of the apple cultivar instead of the exact number of leaves per shoot at a particular time during the growing season. This timing approach to mechanical summer pruning has become a more practical method. Therefore, for large fruited varieties like **Honeycrisp** (where we intentionally want to control or reduce an excessive fruit size at harvest) we recommend an “early” timing for mechanical summer pruning. Under current WNY weather conditions, a mechanical summer pruning program should have started for Honeycrisp after June 21 or the summer solstice.

- A “late” timing should be used for small fruited varieties like **NY-1** and **Gala** to avoid a negative effect on crop size reduction before harvest. Varieties like Gala, Ambrosia, NY-1, and NY-2 should be done approximately 2 to 3 weeks before harvest to facilitate the use of harvest platforms and/or equipment for harvest.
- Medium fruited varieties should be mechanically summer pruned after Honeycrisp and before Gala to have the same controlling effect on fruit size (from about July 15 until early August).

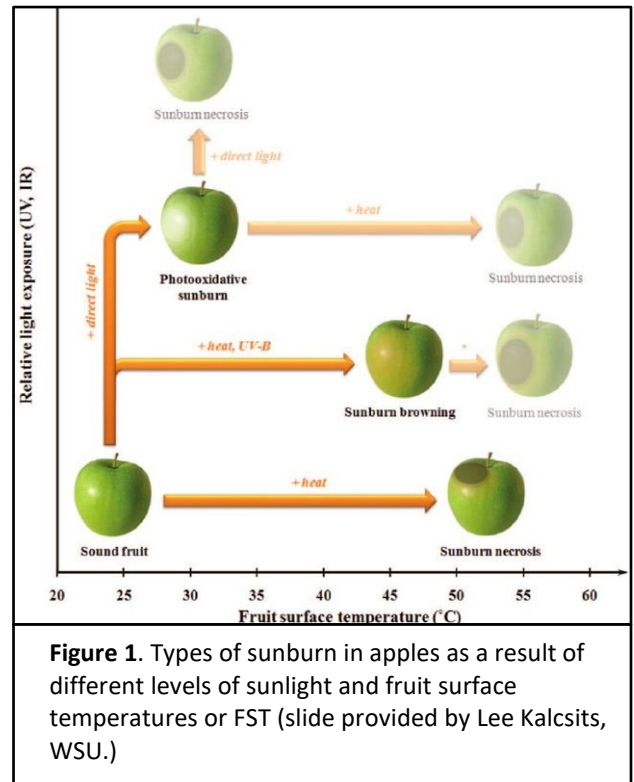
Sunburn: Please be aware that apples become susceptible to sunburn at about 38 – 40 mm fruitlet diameter – or roughly golf ball size. When sunburn is caused by heat, ambient air temperature is not as important as fruit surface temperature (FST). Each variety has its own fruit surface temperature threshold for sunburn to occur (Figure 1). Some varieties, like Cripps Pink, require a very high FST – something like 120° F. Other varieties have a much lower threshold. For example, sunburn occurs on Cameo when the FST reaches 115° F. Many of the newer managed varieties appear to have an **even lower FST threshold**, Minneiska appears to be one of those as does Smitten.

To prevent or not sunburn in high value apple cultivars: You can consider a sunburn program with one of the sprayable protectants. While not as effective as starting the program earlier (apples become susceptible to sunburn at about 38 – 40 mm fruitlet diameter – or roughly golf ball size), it is better than doing nothing and should still provide enough protection to be worth the cost.

A couple of tricks that can help:

- If you have a tower sprayer that can apply from the top of the canopy down, those are more effective than traditional airblast sprayers because they apply the product where it is most needed.
- Also, if your rows are oriented North – South, you can spray only the **west sides of the rows**. Most sunburn comes from afternoon sun exposure, not morning.

Spray early in the morning: If you do apply sprayable protectants, they should be applied in the morning before ambient air temperature reaches 85°F. One application should last for a few weeks until the fruit grows through it.



Berry Notes...Anya Osatuke

Control of Botrytis or Gray Mold in Raspberries during Harvest

Botrytis can spread from rotted berries to healthy berries. Touching healthy berries after touching rotted berries will spread the disease. The healthy berries will rot within 48 hours.

Another way the fungus spreads to healthy berries is through contact with soil or direct contact with infected berries. This is especially true in humid and rainy weather.

Here are some ways to prevent the spread of botrytis during the summer:

- Harvest rotted berries separately from marketable berries to prevent spread of botrytis.
- Pick all unmarketable berries into a "rot" bucket that you will not use for harvesting healthy berries.
- Dispose of rotted berries far away from your planting, so wind cannot carry the spores to infect flowers in the spring.
- Plan to spray for botrytis next spring if you saw a lot of it in your fields this summer.

Here are some tips in case you know that you have a fair amount of botrytis in your planting, but cannot dedicate the labor to selectively remove the unmarketable berries:

- Encourage pickers not to touch moldy berries when picking, especially for quarts that will be sold fresh.
- Freeze or process your berries soon after picking.
- Encourage customers to refrigerate berries promptly.

The way berries are handled and grown is the most important factor in preventing spread of botrytis.

Fungicides may be applied to raspberries during summer as well.

Switch 62.5 WDG, Rorval Brand 4 Flowable, and Elevate 50 WDG both have a 0-day pre-harvest interval. Reserve applications of these sprays for very wet, rainy periods.

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 2021. 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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