



“Fruit Facts” – Thursday, July 29 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.](#)

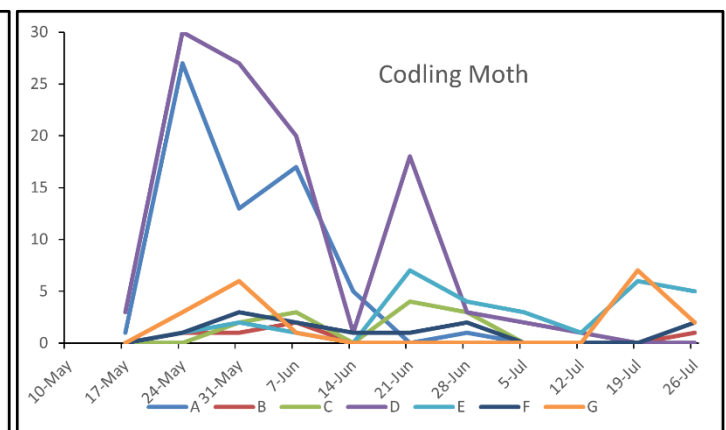
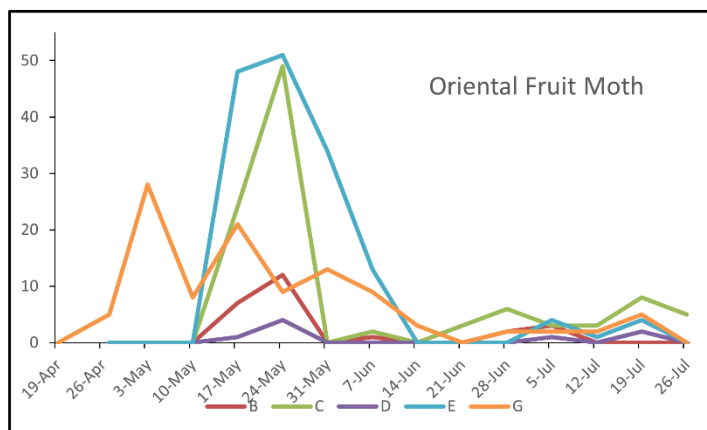
1.5 DEC Credits offered.

Hosted jointly by CCE-ENYCHP and CCE-LOFP

IPM Notes...Janet van Zoeren

Woolly apple aphid colonies are on the increase. 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 began ~July 22 in inland and high pressure locations (see graphs below). We are currently at around 150DD past the biofix for the second generation, putting us at the optimal spray date over the weekend or early next week. The management threshold is: 5 CM per trap per week, and 10 OFM per trap per week. The second generation is a good time to consider Cyd-X (only effective on CM), Madex, or Virosoft. Other options include Altacor, Assail, Delegage, Exirel, Minecto Pro, and Verdepryn. *Remember to 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).

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 baited red sphere trap per week. AM management options include Altacor, Assail, Avaunt, Delegate, Exirel, Imidan and the pyrethroids.

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

Horticultural Notes...Mario Miranda Sazo

Consider the use of irrigation again this season: Growers should consider the use of irrigation in sandier/lighter soils by the end of this week. So far weather and soil moisture conditions have been very favorable in our region for fruit growth, leader growth, and overall canopy development of newly planted trees. Please remember that any lack of rainfall coupled with a heat can affect fruit growth rate and canopy development at this critical time of the year. If needed at your site in the following days, focus irrigation on small fruited varieties like Gala/NY1 and weak cvs. like Honeycrisp.

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.

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.

We have several suggestions for growers concerning rootstock choice at this time of the year:

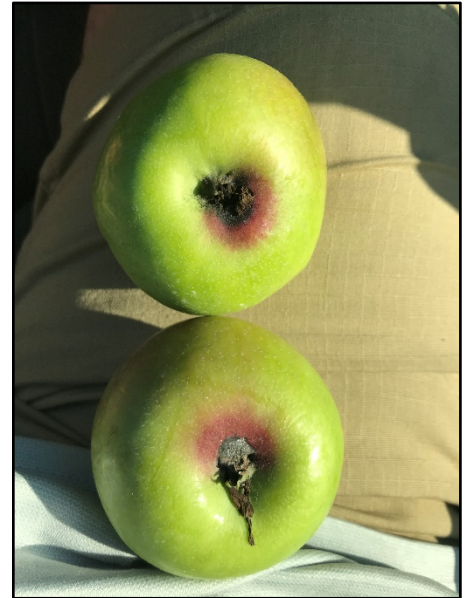
- 1) For fresh fruit orchards we suggest G.11 for vigorous varieties, G.41, G.11 G.214 or G.935 for medium vigorous varieties and G.969 or G.935 for low vigor varieties. They are all fire blight resistant and more productive than other stocks. Our suggested spacing is 3X11.
- 2) For processing orchards we suggest G.969 for vigorous varieties and a spacing of 5X14 with a conduit pipe/1-wire trellis. For weak varieties we suggest G.890 with a similar spacing.

The choice of variety is not easy but plant varieties that you feel have a future market that will return preferably more than \$300/bin for fresh fruit but certainly more than \$200/bin. None of the traditional varieties (McIntosh, Empire, Delicious etc.) have achieved this minimum in recent years.

Recent grower consultations and a Cornell response about a Honeycrisp calyx end disorder: We have noticed the following calyx end issue (see image at right) in a few orchards of Honeycrisp this season (less than 1%). A WNY grower asked recently: “Is there any way that calcium could make the calyx end be more “open” and therefore more susceptible to a bacterial or fungal pathogen? Currently it is way less than 1% in my Honeycrisp”.

Dr. Dave Rosenberger, Emeritus Professor at Cornell provided the following explanation:

- The calyx end rots are caused either by black rot (*Botryosphaeria obtusa*) or by *Sclerotinia sclerotiorum*, but I suspect the former. You can read about the three kinds of blossom end rots that commonly occur in NY here (http://www.scaffolds.entomology.cornell.edu/1999/5.10_diseases.html). The issue of “Healthy Fruit”, the fruit newsletter from Massachusetts that arrive yesterday had similar photos from an orchard in MA. Infection probably occurred near petal fall or within several weeks of petal fall when the pathogen invaded the dying petals and/or sepals on young fruitlets. Development of symptoms is delayed due to inhibitors in small green fruit and/or because it takes some time to invade the fruit following sepal infection. Mancozeb is not very effective against this pathogen, and some of the DMI fungicides are also relatively ineffective when weather conditions strongly favor infection. Captan is usually very effective, but it cannot eradicate infections that occurred before it was applied.
- I cannot say for certain that calcium sprays had no effect, but I have never heard that calcium sprays can stimulate disease, nor can I think of any reason that calcium would make trees more susceptible. However, if you applied calcium in a tank mix with captan, then perhaps the Dowflakes may have contributed to inactivation of the fungicide. Lailiang, is my memory correct in thinking that Dowflake raises water pH? If the pH of the spray solution was high (> pH 7.8) and if you were using Captan in a tank mix, then the high pH may have resulted in alkaline hydrolysis of the captan, thereby inactivating it. So far as I know, most other fungicides are not nearly so susceptible to alkaline hydrolysis, but Imidan will also break down rapidly at high pH.
- If you don't think that a tank mix with Captan was involved, then it is possible that the cultivars on which you are seeing disease are either more susceptible to infection than some of the others or perhaps they were at exactly the right stage of petal fall when rains carried spores to the senescing flowers. Infections of both cultivars may not have occurred during the same rain: it could have different events during late bloom or petal fall. I know that Honeycrisp is very sensitive to the black rot fungus, as are many other cultivars that mature in August or early September. I don't know if Fuji is also unusually susceptible or if the weather conditions were just right for infection of that cultivar this year.



Berry Notes...Anya Osatuke

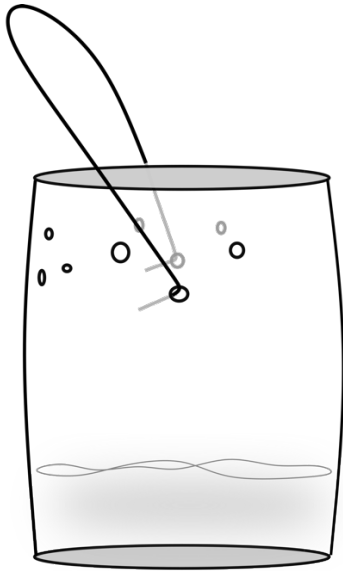
Spotted Wing Drosophila Traps

Monitoring spotted wing drosophila populations in your plantings can be accomplished by setting up a simple bait trap. The purpose of a bait trap is to attract various flies that are present in your berry planting. The traps can be checked weekly to keep tabs on swd populations and identify periods when spraying is appropriate.

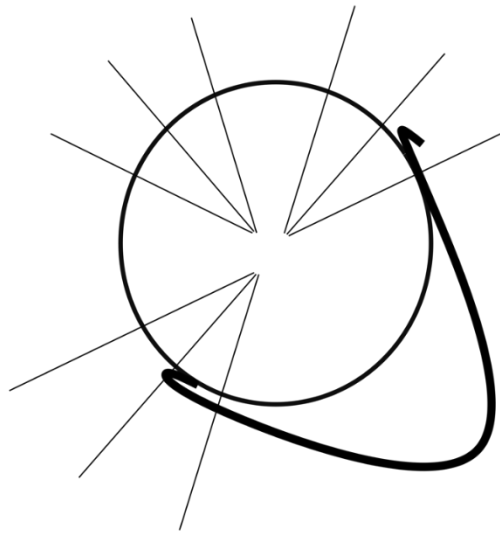
To create bait traps, find containers that have lids and that can have holes easily poked into the sides. Plastic containers, such as peanut butter jars, are ideal.

Apple cider vinegar creates a very attractive odor for flies. Red wine and apple cider can also make an attractive bait. To reduce the surface tension of the liquid, a small amount of soapy water is added. This increases the likelihood that flies will drown when they enter the trap. Strong soap odors will act as a deterrent to the flies, however. Traps should be filled approximately 1/5 – 1/3 of the way with liquid.

Poke holes into the walls, keeping ¼ of the wall without holes. This allows for easy drainage of the liquid in the trap without letting the trapped flies fall out through the holes. Keep the lid on the trap so that flies cannot easily exit once entering.



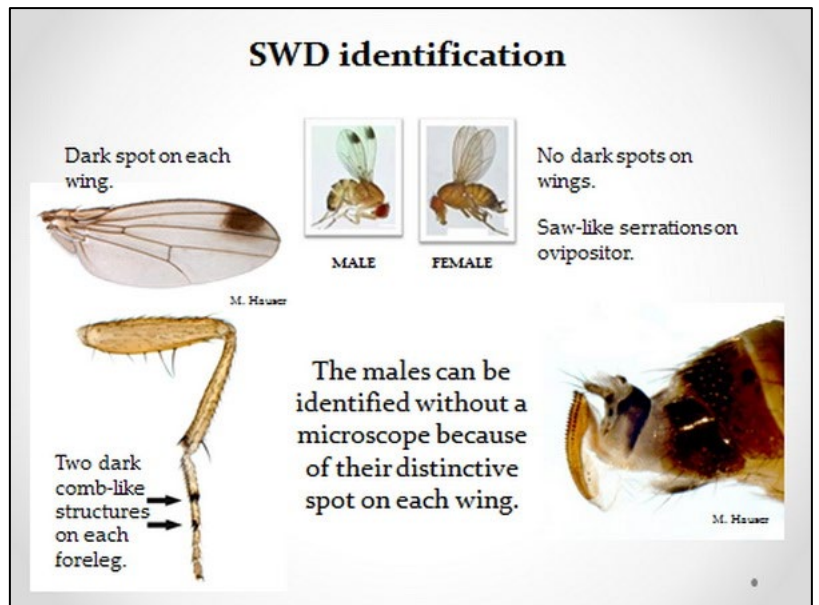
Side view diagram of spotted wing drosophila trap.



Top view of spotted wing drosophila trap with emphasis on holes on 3/4 of the wall surface.

Use a wire or string to create a band with which the trap can be hung. One trap is usually sufficient for one planting of berries that are the same variety. A separate trap should be hung for different varieties of the same berry, especially if the varieties ripen at different times. Hang separate traps for different sorts of berries, as well.

When checking the trap, bear in mind that there are many species of fruit flies that are likely to appear in your trap. Only the spotted wing drosophila poses a risk to marketable fruit.



Visual guide to identifying spotted wing drosophila. Other drosophilids will be differently colored and/or have different markings on their bodies. A hand lens is recommended.

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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