



“Fruit Facts” – Wednesday, May 12 2021

Next week: **WNY Petal Fall zoom meeting** with Dr. Robinson.

When: **Monday May 17, 2021**

Time: **4:00 – 5:00pm**

Zoom link: <https://cornell.zoom.us/j/98648616306?pwd=c3pSZWZuTDIYbU90Z3NGdTl1RmJtdz09>



Previous Statewide Pink and Bloom Zoom Meetings and much more is on our YouTube channel at:
<https://www.youtube.com/channel/UC6PXjEkx7nLDY1A81Ek5brQ>

CCE LOF and ENYCH Pruning Video Resources:

- [Precision Pruning Honeycrisp](#) by LOF (NEW RELEASE)
- [Precision Pruning for Early Crop Load Management](#) by ENYCH
- [Pruning Honeycrisp for Annual Production Video](#) by LOF



IPM Notes...Janet van Zoeren

Apple scab.

May 11 th – 13 th	Infection Predicted	Ascospore Maturity	Predicted Spore Release
NIAGARA COUNTY	 None	93%	0%
WAYNE COUNTY	 None	94%	0%

We are moving into what should be a drier week with a low/no risk of apple scab infection. By the end of the week almost all ascospores will have been released, but secondary infections could occur with rain. Apple scab symptoms have been reported in Western New York.

Fire Blight.

	Infection Predicted	Highest EIP	Highest DH
NIAGARA COUNTY	 None	0	16
WAYNE COUNTY	 None	0	3

The risk for fire blight is exceptionally low in most areas at this time. Continue to watch weather predictions and models.

Internal Worms. Consider setting out monitoring traps **Oriental Fruit Moth** and **Codling Moth**. Why monitor? There are two key reasons:

1. To determine if/when you reach a treatment threshold (>10 OFM caught per trap per week; >5 CM caught per trap per week).
2. To determine the **biofix** specific to your orchard (i.e. first sustained trap catch). This will be used in the NEWA insect models to greatly increase accuracy of those predictions.

Keep in mind seasonal use restrictions: you may want to retain some flexibility for using such products later in the season.

Bees in the orchards! Keep your bees safe, and stay informed of which pesticides are most safe during bloom. The [Pesticide Decision-making Guide to Protect Pollinators in Tree Fruit Orchards](#) provides very comprehensive information, and a shorter, more concise guide is available on the LOF website at https://rvpadmin.cce.cornell.edu/uploads/doc_870.pdf.

Stone Fruit.

Brown Rot management will continue to be important in stone fruits, as predicted temperatures may finally warm to reach that optimal range for pathogen development of above 60F. If you have a history of blossom blight, and especially so for nectarine growers, you may want to rotate fungicides through from pre-bloom through petal fall. There are many labeled products (see Recommends) available, including Rovral 4 flowable (may provide 24hr “kickback” activity) and chlorothalonil (in possible avoid when bees are actively foraging).

Plum curculio is active once temperatures reach above 60 °F, and begin to lay eggs as soon as fruitlets develop. The traditional spray timing for PC would be beginning at shuck fall. However, with the cool spring we’ve been having, we may not begin seeing activity, and may not need to spray for it, until a little later in the spring. **Assail and Avaunt** are registered for use against PC.

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

Horticultural Notes...Mario Miranda Sazo

Bloom thinning update in inland and lake sites and guidance by the PTGM:

- Some Gala and Honeycrisp blocks in inland sites received the first ATS sprays this past Saturday or Sunday.
- For some Gala blocks in lake sites, the model indicates they should be sprayed for the first time with ATS on Thursday or Friday.
- For some Honeycrisp blocks in lake sites, the model indicates they should be sprayed for the first time with ATS on Saturday or Sunday or Monday the 17.
- The continued cool, windy, but sunny weather early this week has continued spreading out the optimum time to apply ATS. First ATS sprays along the lake will start on Thursday (mainly for Gala) and will continue during the weekend depending on variety and location. Several Honeycrisp laterals are still at the balloon stage and lagging very behind in phenology. Please run the model yourself for your situation.
- An important note: The PTGM in the old NEWA will not update each time you log on unless you edit the block information and click the update button. (The edit button is a symbol of a pencil in the upper right-hand corner of the graph).
- We are instead recommending growers to use the PTGM through the new NEWA: <https://dev.newa.cornell.edu/>. Set up block account, weather station, add style length, etc. - then the weather will update every time you re-open or refresh page. Just remember to open in Google Chrome or Firefox, not Microsoft Edge.

Why is blossom thinning critical for Honeycrisp?

- Gibberellins produced by the seed of young fruitlets and shoots tips inhibit flower formation for the next year.
- Excessive number of seeds inhibit flower initiation.
- The earlier the target fruit number can be reduced to the target fruit number the greater the likelihood of having flower initiation.

Should I blossom thin or not in 2021?

Assess each block and each variety.

- If king flower damage is **less than 40%** then
 - Blossom thin especially Honeycrisp, Fuji, and Gala
- If king flower damage is **greater than 40%** then
 - Do not blossom thin
- If total blossom clusters on Honeycrisp are **close to the target fruit number** then blossom thinning is **not needed**. Example target is 73 fruit/tree and total blossom count is less than 100 then there is not need to blossom thin.

Should I use ATS or NAA/NAD?

- Where king flower damage is **minimal use ATS**
- Where king flower damage is **significant use NAA or NAD**

Where there has been frost damage, apply no thinner to the bottom half of tree.

Don't use surfactants like Regulaid or Oil.

Blossom thinning with ATS by using the Pollen Tube Growth Model (PTGM)

- Measure style length of 20 king flowers by removing petals but not sepals
- Determine the moment in time when enough king flowers are open to match the target fruit number (with Tall Spindle Honeycrisp @ 70-100 flowers with Tall Spindle Gala @ 100-130 flowers)
- Start the PTGM when enough king flowers are open
- Spray with ATS when PTGM reaches 60-80%
- Re-start the PTGM after the first spray and sprays the second spray when model reaches 60-80%
- If some kings are damaged, then allow more flowers to open before beginning the PTGM clock

Special considerations when blossom thinning with ATS

- ATS burns stigma of the pistil, thus only the droplets on the pistil itself cause thinning. Thus, the concentration of ATS in the droplet is the important factor.
- ATS concentration of 2.0-2.5% (use 80-100 gallons of water and do not concentrate ATS in the tank)
- Use 2.0% if temperatures are above 75°F
- Use 2.5% if temperatures are below 75°F
- Use a uniform spray pattern with equal nozzles from top to bottom
- Use @ 100 gallons of water/acre
- Causes mild leaf phytotoxicity but no effect on fruit finish
- Requires 2-3 applications

Bloom thinning with hormone thinners (NAA/NAD)

- Precise timing is not important
- We suggest 80% bloom (4 out of 5 flowers in each cluster are open. Ignore lateral bloom on 1-year wood when determining full bloom)
- Spray 50-100 gallons water/acre
- Use TRV to adjust amount in tank for a dilute equivalent spray
- **NAA** (Fruitone, Pomaxa, Refine)
 - A mild thinner (safe) when used at bloom
 - Can be sprayed safely at a high rate of 100ppm (4oz/100)
 - Little or no depression of photosynthesis at bloom
 - Can help improve return bloom on Honeycrisp
- **NAD** (Amide-Thin W)
 - A mild thinner (safe) when used at bloom
 - Can be sprayed safely at a high rate of 8oz/100
 - Little or no depression of photosynthesis at bloom
 - Can help improve return bloom on Honeycrisp

Cautions/special mixing considerations

- Do not spray caustic thinners under slow drying and wet conditions or if there is frost
- Frost causes damage to fruit skin and caustic thinners then cause russetting
- You can mix and spray strep and ATS but without Regulaid
- The use of NAA plus strep plus Regulaid is OK

Berry Notes... Janet van Zoeren

Spring fungicide and insecticide reminders.

Blueberries

- Cool, moist weather is perfect for **Mummyberry**. Ideal temperatures for mummyberry infection are from 45° to 60° F. **Abound** and **Indar** are labeled for both Botrytis and Mummyberry at the pink stage. If you miss this spray window, then focus on bloom. The bloom spray is designed to prevent flower infections. It's important when primary shoot blight infections were not controlled. Substituting **captan** in the mixture may be preferred if Phomopsis canker is a problem. Mixtures with captan may be repeated at 7 to 10-day intervals throughout bloom if rain occurs.
- A pink fungicide application will help control **botrytis blossom and twig blight**. Many of the same fungicides labelled for mummyberry will control botrytis.
- Bloom is the best timing to control **anthracnose fruit rot**. There are many different fungicides that can help manage these fruit rots – the key is timing. Remember that many fungicides have been shown to have sublethal but still damaging effects to bees, so do your best to choose less toxic products and spray when bees are not foraging.

Strawberries

- **Red stele and Leather Rot** are both caused by Phytophthora species. You may experience problems with Phytophthora rots if you've had long periods of wet soil, frequently used overhead irrigation for frost protection, or if leather rot has been a problem in past years. **Ridomil Gold and phosphorus acid** products can be sprayed at first bloom to control Phytophthora.
- **Angular leaf spot** may occur in fields where you used overhead irrigation for frost protection. **Copper** is the main effective product available – fungicides will not control this bacterial disease.
- If you used row cover to protect berries during the cool temperatures, be sure to check for a build up of **mites or aphids**. The warm humid environment under the row cover provides ideal conditions for their population growth. In general, native natural enemies keep these pests under economically damaging levels.
- Monitor for **Tarnished Plant Bug** nymphs from just before blossoms open until harvest. To monitor, shake flowers or fruit over light-colored saucers and count the nymphs caught. The general recommendation is to apply an insecticide if you have on average 1 to 2 TPB nymphs per inflorescence. If an insecticide application during bloom is absolutely necessary, be sure to apply it in the evening when bees are not actively foraging. In order to avoid needing to apply during bloom, **avoid mowing the surrounding areas until after bloom finished**, because mowing pushes TPB into the strawberry plantings.

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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