



“Fruit Facts” – Friday, May 19th, 2023
Mario Miranda Sazo, Janet van Zoeren and Anya Osatuke

WNY 11-12 mm Thinning and Pest/Disease Management Meetings Monday 5/22 (Orleans) & Tuesday 5/23 (Wayne), both 10:30 AM – Noon. No registration required.

Please join us next Monday and Tuesday for these timely meetings.

Agenda:

Insect Pest Update – Dr. Monique Rivera, Cornell AgriTech

Disease Update – Dr. Kerik Cox, Cornell AgriTech

Fruit IPM Update – Dr Anna Wallis, Cornell AgriTech

Chemical Thinning Recommendations in the 11-12 mm window - Dr. Terence Robinson, Cornell AgriTech. Terence will give the latest recommendations using the weather forecast and carbohydrate models. The use of two vision system technologies (Pometa and Orchard Robotics) will be discussed.

Monday, March 22, 10:30 AM – Noon

Kast Farms

2948 Lattin Rd.

Albion, NY 14411

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Tuesday, March 23, 10:30 AM – Noon

Donald DeMarree Fruit Farm

7654 Townline Rd.

Williamson, NY 14589

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To Do Today

- **Our fruit region had frost and sub-freezing temperatures that varied from 26-29°F (inland) to 32-35.6°F (lake) yesterday:** The coldest blocks (or row sections) located at the lower part of valleys, drumlins, sites without good air drainage/surrounded by woods, were more exposed to freezing temperatures that lasted in some cases from 2-4 hours, and until 5-6 hours. In the next few days, growers will need to check any potential side bloom and king bloom damages and open fruitlets as shown below. Please notice that the following pics were taken in previous seasons and are used here as an example to recognize early signs of frost damage in apples.



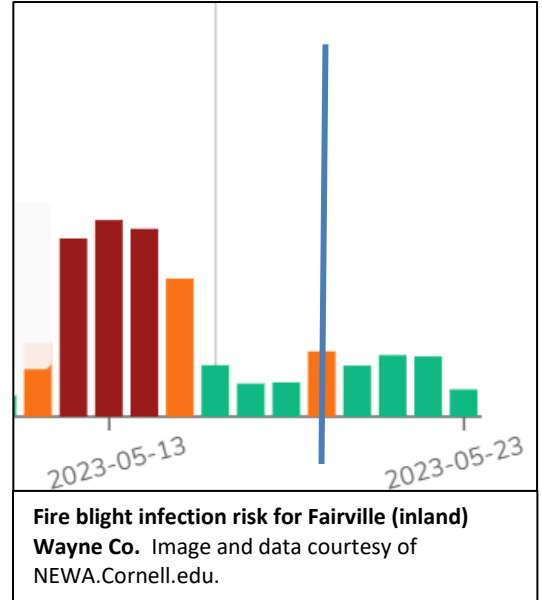
- **Growers have adapted and invested in new technologies to cope with extreme weather events:** In the last several years (mainly after 2012), many growers have invested in frost protection methods, installed over 40-45 wind machines, air drain fans, smudge pots, opened hedge rows to improve air drainage, and some growers in the Hudson Valley have even hired helicopters to assist in situations when the other methods will not be effective. Growers have gained a better understanding of where high risky orchard sites are located relative to microclimates. Several growers have also explored new irrigation water sources as they invest in new plantings to promote tree growth and early yields for early payback on establishment costs.



- **All frost/cold protection methods consist of one or more of the following principles:**
 1. Good site selection for adequate cold air drainage and proper siting of buildings, windbreaks and fences to ensure unrestricted cold air movement
 2. Mixing of the air to use heat stored in the atmosphere and prevent stratification (e.g., wind machines, helicopters).
 3. Direct convective heating of the air (e.g., heaters, heated water undertree).
 4. Radiant heating directly to plant (e.g., heaters, undertree sprinklers).
 5. Release of the latent heat of fusion (e.g., freezing water directly on plant-overtree sprinklers; or on surface under the canopy-undertree sprinklers).

6. Release of the latent heat of condensation (e.g., humidification, fogs, sprinkle).
7. Radiative heat loss interception (e.g., fogs, covers).
8. Utilization of soil heat storage (e.g., bare soils).
9. Planting cold hardy and/or late blooming varieties.

- There is a risk of **apple scab** infection the region this evening into tomorrow. If there is a break in the winds today, it would be good to get a cover spray on. This is a good window for a single site pre-infection spray; some good options include Aprovia, Tesaris, Merivon or Cevya (if you also have rust).
- There is a slight risk of **fire blight infection** today. Risk is highest in inland sites in Wayne county. Consider covering up IF you have blocks with flowers still open AND average temperatures are above 60F AND there is a wetting event predicted (or you plan to put on a scab cover spray) AND you have a history of fire blight in the block.
- **Watch for powdery mildew.** We have begun seeing mildew symptoms in high inoculum locations. Some options for PM control include Cevya, Flint extra, Fontalis, Indar, Inspire Super, Luna Sensation, Merivon, Miravis, Sovran, and others.
- **Apple petal fall insecticides** will likely go on this week for many orchards. However, **If there are still bees in your blocks, wait to 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.
- 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.
- **Wolly apple aphid** can be controlled by Beleaf, Movento, Sefina, Sivanto or Diazinon at this timing.
- **Mites.** Consider scouting the underside of leaves for European red mite. If you find high populations, highly effective products include Agri-Mek, Apollo, Onager, Savey, Zeal, Kanemite, Nexter, Portal, Acramite, Envidor, Nealta, or Banter. If you already applied for ERM, be sure to rotate to a new IRAC code.

Stone Fruits:

- **Plum curculio** management began at shuck split. For peaches, you can follow the same degree day model used in apples to determine if a follow up cover spray is necessary this year. In cherries, you will need to continue to cover a little longer. In addition, cherry growers will want to focus on Avaunt and neonicotinoids for PC management at this timing, as those do not manage spotted wing drosophila and so do not need to be saved for use later in the season.

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 2023. 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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