



“Fruit Facts” – Wednesday, April 28 2021

Statewide virtual Bloom Thinning Meeting via Zoom next Monday May 3rd, 4-5pm

Dr. Terence Robinson (Cornell) and others will continue to present the detailed and practical implications for bloom thinning with and without the use of the Pollen Tube Growth Model in apples. There will be ample time for questions and discussion.

At meeting time, please click the following link, there is no need to pre-register:

Join Zoom Meeting at <https://cornell.zoom.us/j/95697849291?pwd=K0Jjc0Zlb2JoaVg5VXR4YTloK2N5QT09>

Meeting ID: 956 9784 9291, Passcode: 061465, One tap mobile +16468769923,,95697849291# US (New York)

Video now available from statewide “pink” meeting: Please re-watch the introduction to bloom thinning by Dr. Robinson and much more (Nutrition by Dr. Cheng, Fire Blight Management by Dr. Cox, and Insect Mgmt at Pink from Dr. Jaime Pinero (UMass), from our Statewide **Virtual Pink Meeting** that was held 4/27 Here:

https://www.youtube.com/watch?v=fnF6y_fCdqw

All of our educational videos are 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.

April 28 th -29 th	Infection Predicted	Ascospore Maturity	Predicted Spore Release
NIAGARA COUNTY	 Low	52%	8%
WAYNE COUNTY	 High	41%	25%

West of Rochester: A lower infection period (8% spore release) is predicted for 4/29. Apply a strong fungicide like an SDHI (apple scab only) or a DMI (powdery mildew, rust, and apple scab) for protection **prior to the infection event (today)** if possible.

East of Rochester: A larger infection period (25% spore release) is predicted for 4/29. Apply a strong fungicide like an SDHI (apple scab only) or a DMI (powdery mildew, rust, and apple scab) for protection **prior to the infection event (today)** if possible. You may still want to follow up with something with kick-back – watch your individual weather station to gauge infection duration.

Fire Blight.

	Infection Predicted	Highest EIP	Highest DH
NIAGARA COUNTY	 None	11	59
WAYNE COUNTY	 None	12	69

Both West and East of Rochester: As you reach bloom ~ the end of the week/next week, monitor tree phenology, weather, and the models for fire blight infections. If you have a high vigor block, an 'Early Pink' application of prohexadione-calcium (Apogee or Kudos) for blossom blight and early shoot blight may be helpful. Be sure to record your blossom open dates, to use in the NEWA or RimPro models for more accurate individualized predictions.

Powdery Mildew. Watch for mildew symptoms as you drive through the orchard. I'm not aware of many PM outbreaks last year, but, if you did see much PM in 2020, the pink through petal fall period is the time to get it under control. If you had PM last year, add an SDHI material (i.e. **Merivon, Luna Sensation, Fontelis**) to your scab spray.

"Pink" insecticide? Some growers may want to keep internal lep (in particular leaf rollers such as OBLR) down with the use of a pre-bloom insecticide. This can be useful to manage historical outbreaks, but is probably not necessary prophelactically if there is no known problem. If you are interested in a pink-timing control with fewer impacts on pollinators or beneficial predators, consider a Bt product (i.e. **Dipel**) or the insect growth regulator **Intrepid** (IRAC 18A).

Pear Psylla nymphs have begun to hatch. If you did not get adequate oil coverage this spring to smother the eggs, consider an early pink application of an insect growth regulator (i.e. Esteem) or a pyrethroid or neonicotinoid (apply those well before bloom to avoid pollinators contacting the residue).

Did you apply a pre-bloom insecticide this year?

The McArt Lab at Cornell Entomology is looking for apple growers who applied a pre-bloom spray, to participate in a study to pinpoint how spray timing is related to pollinator pesticide exposure (and whether exposure is linked to on-farm or off-farm practices).

Participation would consist of:

- We would come to your farm during bloom, and collect 10 open flowers in your orchard
- We would ask to view your spring spray records, showing specific product(s) and date(s) that insecticides were used.

Please reach out to me if you applied a pre-bloom insecticide and would be willing for me to stop off at your orchard during bloom! Phone: 585 797 8368 email: jev67@cornell.edu

Stone Fruit.

Brown Rot management in stone fruit may be difficult this year with all the rain we're getting during peach and cherry bloom, although the cool temperatures may be to our advantage. Although blossom infection can occur at temperatures above 32F, the optimal range for pathogen development is 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).

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

Statewide pink virtual meeting yesterday: We had a very successful pink zoom meeting this past Monday and all presentations are now posted in our CCE LOF website. Please review above for more details. I would like to encourage everybody to attend the coming **statewide bloom virtual meeting** scheduled for **next Monday, May 3** (see details above).

Please review the coming CCE LOF newsletter article titled ‘Fertilization of Honeycrisp with consideration of Rootstock to Manage Bitter Pit’ this week (probably to be sent to growers tomorrow Thursday!). The article covers Honeycrisp nutrient management as influenced by rootstock and provides new potassium recommendations and plant tissue levels for ‘Honeycrisp’ (young and mature blocks) to mitigate incidence of bitter pit. Please read the article!

Suggested vegetative growth control strategies for mature ‘Honeycrisp’ blocks with very low return bloom or non-existent this spring: Last week we continued finding more ‘Honeycrisp’ blocks with very low return bloom or almost absent. This issue has surprised even the most experienced HC fruit growers in some cases.

- **Delay the final pruning cut decision** of any large branch (1-2 branches/tree) until bloom or right after.
- **Reduce or eliminate the application of nitrogen.** The soil will generate enough N through the breakdown of organic matter.
- **Apply Apogee at pink** (probably tomorrow Thursday-Friday or during the weekend at the lake sites) – this application will help to reduce excessive tree growth when crop load will be very light or non-existent this season.
- **Root prune at bloom to 10 days after petal fall** can be very effective in controlling excessive shoot growth.

First frost events in our region last week: Just a few NEWA weather stations registered temperatures below 28°F, around 28-29°F, and for only 1-2 hours in the coldest sites last week. **Frost events were more severe on Thursday morning 4/22 than Wednesday 4/21.** Remember that not all buds on a tree are equally susceptible to a particular temperature. Those that are farther along will be the most susceptible. Therefore, damage from freezes depends on the development stage of the fruit crop. As a rule of thumb, we can expect that early varieties such as Empire, McIntosh, Idared, and NY2 (to mention a few!) should have been more advanced last Wednesday-Thursday at your site and, therefore, were more susceptible to the low temperatures registered than less developed varieties such as Honeycrisp, Cortland, Gala, Red Delicious or late varieties such as Golden Delicious, Fuji, EverCrisp, and Rome. Fortunately, most of the high value cultivars like Gala, Honeycrisp, or Fuji were still at tight cluster or at the early pink stage in our region last week. I hope the temperatures won’t drop as much in the next 10-14 days.

Table 1. Minimum temperatures (°F) registered by 21 NEWA weather stations (18 in the WNY fruit region and 3 at Cornell AgriTech, Geneva) on Wednesday April 21 and Thursday April 22, 2021.

NEWA Weather stations	Minimum temperatures (°F) and duration (hours)	
	Wednesday April 21	Thursday April 22
Albion	30.8	29.2
Appleton (Russell Farms)	31.2	32.2
Appleton North	31.8	32.2
Ashwood	31.0	30.3
Baldwinsville (Abbott)	32.2	28.5 (1 hour)
Butler (Tree Crisp)	30.5	28.8 (1 hour)
Fairville (The Apple Shed)	31.1	27.6 (2 hours)
Geneva (AgriTech Darrow)	28.9 (1 hour)	26.1 (3 hours)
Geneva (AgriTech McCarthy)	30.4	26.6 (3 hours)
Geneva (AgriTech North)	30.0	26.4 (3 hours)

Knowlesville	30.8	28.4 (1 hour)
Lyndonville	30.5	29.2
Medina	29.8	27.7 (1 hour)
Point Breeze	31.0	30.8
Ransonville	29.9	30.0
Sodus (Cherry Lawn)	32.0	30.3
Sodus (Lake)	31.8	29.9
Waterport (Orchard Dale)	32.2	30.8
Williamson (Orbaker)	33.1	31.1
Williamson (DeMarree)	31.3	29.6
Williamson (Mason)	31.3	29.4

Continue preparing for frost events this spring: Of concern for both lakeshore and inland sites is whether killing frost or freeze events will affect our region over the next several weeks. Frosts on average have been noted as **late as May 15th (along the shoreline) and May 30th (for inland sites)** and typically we see an average of four or five freeze events in April and May in Western NY.

Get ready your frost protection devices: Apple growers should have checked and tested the use of frost protection devices (wind machines) last week. Typically, a wind machine can protect 10 acres or so. We emphasize that the best methods to reduce frost risk and prevent crop loss are through **orchard site selection** and the use of wind machines during frost events.

Site location matters: New stone and pome fruit plantings will be more prone to future frost events if located in low-lying areas where cold air settles, and in areas where wind and air movement are blocked by obstructions such as trees, hills, fences, and or buildings.

Pruning of peaches: For those of you who have peaches and given the subsequent high risk of crop loss to frost, we recommend that peaches **be pruned less aggressively**. After we get past the risk of frost, you should prune off 1/3 to ½ of the remaining branch and thin out wood keeping the best pencil sized wood. We also recommend that growers use split applications of nitrogen this year in case we have a light crop due to frost and need to drop the second application to reduce vigor.

Stone fruit planting: We recommend that all stone fruit be planted on 12-18 inch high berms. Stone fruit trees are not very water tolerant and the additional height gives 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.

The benefits of a prebloom boron foliar application are:

- the spray provides boron to the flower during the critical period of development of the ovules and anthers.
- improves pollen germination and pollen tube growth.
- improves early season leaf and shoot growth.
- is also beneficial in overcoming the effects of winter injury or early spring frosts.
- a prebloom application of zinc can also help to stimulate early bud, leaf, and shoot development.
- one of the most critical periods that a zinc shortage may seriously impair tree performance is between budbreak and fruit set. A zinc shortage at this time often results in poor growth of the leaves and new shoots as well as abnormal development of pollen tubes, ultimately resulting in poor seed set.

Do the right things after planting of new trees: Weather and soil moisture conditions were optimal for planting yesterday. Just a few reminders today...

- soak tree roots before planting
- be sure you plant with at least 4 to 6 inches of rootstock out the ground (avoid scion-rooted trees)
- adjust graft unions carefully at planting, and pack soil around trees thoroughly
- water trees in with a starter solution (soluble 20-20-20 fertilizer)
- apply ¼ lb of Calcium nitrate per tree after a significant rain or irrigation has ensured that the soil has settled tightly around the tree roots (this protects the roots from direct exposure to the fertilizer that may burn the roots).
- apply another ¼ lb Calcium nitrate per tree 4 weeks later after shoot growth starts
- apply herbicides after the new planting has had a settling rain for better weed control results

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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