



“Fruit Facts” – Tuesday, April 25th, 2023

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Early pink phenology update

Yesterday we started to see the first blossoms of Idared in inland sites. This morning we feature the cultivars Fuji, Honeycrisp, and Gala at the early pink stages in inland and lake sites.

Early pink stages of Gala, Honeycrisp, and Fuji by Monday April 24, 2023



Photography by Elizabeth Tee

Apple Scab infection event last weekend

Most of the region experienced an **apple scab infection event** over the weekend. Consider applying **Captan/Mancozeb mixed with a SI or SDHI** today, if you didn't put it on yesterday or Sunday.

The current forecast shows **no** predicted apple scab or fire blight infections in the near future.

Reminder to enroll in the Fruit Facts by May 5th!

Are you enrolled for this year's Fruit Facts? We have been providing a few complementary issues this spring, as a reminder to re-enroll if you would like to. These will continue until May 5th. You can re-enroll in with the Fruit Team and for your Fruit Facts subscription at: <https://lof.cce.cornell.edu/enrollment.php>.

To Do Today

- **This is the week to impose/finish the last touches of precision pruning on Honeycrisp at the early pink stage.**
 - English - Pruning Guide for Precision Crop Load Management**
A video describing precision pruning, why, how, and when to accomplish it.
<https://www.youtube.com/watch?v=29cF8yOKup0>
 - Spanish - Guía de Poda para Manejar con Precisión la Carga Frutal (con subtítulos en Español)**
Un video, subtulado en el idioma español, que describe la poda de precisión, el por qué, cómo, y cuando realizarla.
<https://www.youtube.com/watch?v=8kZYT-7etL4>
- **The first step in managing crop load is to establish a target of final fruit number for Honeycrisp and Gala**
 - Honeycrisp example:**
 - $1,200 \text{ bu/acre} * 80 \text{ count} / 1,320 \text{ trees/acre} = 73 \text{ fruits/tree}$
 - Gala example:**
 - $1,500 \text{ bu/acre} * 100 \text{ count} / 1,320 \text{ trees/acre} = 114 \text{ fruits/tree}$
- **The second step (important this week at early pink for Honeycrisp) is adjust bud load through precision pruning. And also ask your Jamaican and Spanish pruning crews to watch the CCE LOF YouTube videos in English and Spanish – see above!)**
 - Honeycrisp example:**
 - Target = $73 \text{ fruits/tree} * 2 = 146 \text{ buds per tree}$
 - Don't leave more than 200 flower clusters on Honeycrisp!
 - Gala example:**
 - Target = $114 \text{ fruits/tree} * 1.5 = 171 \text{ buds per tree}$
 - Don't leave more than 250 flower clusters on Gala!
- **Promalin use to improve shape (typiness) of Delicious and Gala:** Use promalin (concentration 25-50ppm; rate of formulated product 1/2pt/100 gal) early king bloom to 50% bloom (well before full bloom!). Apply as a fine mist using 50-100 gallons/acre. Don't apply more than 2 pt/acre. Fruit thinning may occur at high rates. Use of a surfactant increases both typiness and thinning responses.
- **Consider the use of Apogee at pink for suppression of bitter pit in Honeycrisp this week – do you have enough product? This will also help mitigate fire blight infection risk!**
- **Tarnished plant bug** is here – we have caught tarnished plant bug in monitoring traps in several locations across the region. If you had a history of economically important TPB damage in your blocks last year, consider a pink application this spring. Some highly effective products for TPB include many of the pyrethroids (i.e. Asana, Baythroid, Danitol, Mustang Max, Warrior II, etc) and Beleaf.
- You may also want to consider a **pink insecticide application** if you have a history of damage from **rosy apple aphid**. Some highly effective products for RAA include Exirel, Versys Inscalis, Sivanto Prime, Actara and Assail. If you apply a pyrethroid for TPB, that would also help control RAA. However, we recommend you target RAA with one of these other non-pyrethroid materials, in order to preserve all your beneficial natural enemies.
- **Mites** should also be on your mind in blocks with a history of infestation. Consider applying an ovicidal acaricides (Apollo, Savey/Onager, Zeal), either before or after bloom. Alternatively, you could apply a rescue-type product after bloom (i.e. Acramite, Carzol, Kanemite, Nexter, and Portal).
- **The benefits of a pre-bloom boron foliar application are:**
 - (1) the spray provides boron to the flower during the critical period of development of the ovules and anthers.
 - (2) improves pollen germination and pollen tube growth.
 - (3) improves early season leaf and shoot growth.
 - (4) is also beneficial in overcoming the effects of winter injury or early spring frosts.
 - (5) a prebloom application of zinc can also help to stimulate early bud, leaf, and shoot development.

- (6) 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.

Stone Fruits:

- The **brown Rot** management period in stone fruit has begun. Although the optimal range for pathogen development is above 60F, blossom infection can occur at any temperature above 32F. If you have a history of blossom blight, and especially for nectarine growers, rotate fungicides from pre-bloom through petal fall. There are many labeled products available (see Recommends), including Rovral 4 flowable (which may provide 24hr “kickback” activity) and chlorothalonil/Bravo (avoid when bees are foraging, if possible).
- **Pruning of peaches:** You should prune off 1/3 to 1/2 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.

On The Horizon

If you experienced a fire blight outbreak last year, consider an application of Apogee this year at pink. This is especially important on farms where Strep Resistant *Erwinia* has been found in the past. A **pink application** of prohexadione-calcium (**Kudos, Apogee, etc.**) at 2 oz/100 gal mixed with 1oz /100 acibenzolar S-methyl (Actigard) will both slow vigorous growth of the tree, but maybe even more importantly will thicken the cell walls making it more difficult for *Erwinia* to colonize.

Why is blossom thinning critical for Honeycrisp in 2023?

- 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 this season

Time to start getting ready your frost protection devices: Apple growers should check and test the use of frost protection devices (wind machines) next 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.

Start planning or continue the annual maintenance of your trellis system:

1. Replace broken and weakened posts (see pics taken in a mature Honeycrisp block yesterday)
2. Re-pound anchors and in-line posts that have heaved.
3. Straighten leaning posts.
4. Check and replace pulled staples especially those at stress points where wire changes direction.
5. Readjust wire tension before this year crop.

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