



“Fruit Facts” – Tuesday, April 11th, 2023

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Green tip phenology update



Photography by Elizabeth Tee

To Do Today

- **No apple scab** infection events are predicted in our region during the week this week.
- Record when you reach **50% green tip in MacIntosh** on your farm – this will be used to begin the apple scab forecasting model. Record when you reach **50% green tip in Gala and Honeycrisp** blocks also. An accurate estimation of 50% GT date will be important for the use of the carbohydrate model for chemical thinning later this season.
 - Do the quick bud counts and tally the buds at the green tip stage. You should randomly pick and examine up to 100 fruit buds in a sample of around 15-20 trees. Do this until you calculate in your tally that in this sample of 100 examined fruit buds there is 50 of them at green tip. Try to get a good estimate this season.
- Apply a **copper** fungicide (e.g. Badge, Kocide, Cuprofix) if you haven't yet this spring. You can make this application **through green tip** -- the window is closing fast!
- Consider a **dormant oil sprays** if we get a window without below freezing temperatures in the two days prior or two days after oil application. The 2-3% oil application will help with **mites, San Jose scale** and **pear psylla**.
- **Preparing to graft in the orchard:** Tree tops should be removed and ready for spring grafting at the latest this week. The majority of the top should be removed first so that the large quantity of brush can be removed. The fresh cut will be made the day of grafting to create a smooth fresh cambial interface.
- **I saw a significant amount of digging of on-farm nursery trees yesterday:** The weather and soil conditions were excellent for digging of nice 'grow-through' trees.
- **Call your nurserymen!** Check your nursery orders, including tree numbers, tree quality, and delivery rates.
 - **As soon as your tree order arrives, open the boxes**, including the interior plastic wrap, inspect the trees for trueness. This process also helps air them out and gives you a chance to water the roots if they appear to be drying.
 - **Storing of trees for the 2023 planting season:** The optimum storage temperature is 33-35°F although trees

can tolerate slightly less than 32°F or warmer temperatures up to 45-50°F. At warmer temperatures trees can begin to break bud before they can be planted this spring. Another important storage requirement is to **avoid ethylene gas**. Trees should not be stored in the same room with apples.

- **If a cooler is not available for the new trees**, find the coolest place you have and keep the roots moist until planting is possible in your area.

○ **Fertilization and pruning recommendations for Honeycrisp in 2023:**

• **Calcium**

- Before planting add sufficient lime to achieve a soil Ca level of 5,000lbs of Ca per acre from soil test.
- If leaf Ca < 1.3% we suggest 4 tons of lime every other year to raise soil calcium level even if pH goes 7.1 or 7.2
- If leaf Ca level is between 1.3 and 1.8% we suggest 2 tons of lime every other year to raise soil calcium level even if pH goes to 7.1 or 7.2
- If leaf Ca level is between 1.8 and 2.0% we suggest 1 ton of lime every other year to maintain soil Ca
- If leaf Ca is greater than 2% we suggest no lime but add gypsum until soil Ca level is ~5,000 lbs. per acre

• **Pruning considerations**

- If shoot growth is more than 15 inches long then vigor is too high and light pruning is suggested
- If shoot growth is between 8" and 12" then vigor is moderate and normal pruning is suggested
- If shoot growth is less than 8" then vigor is low, and we get almost no renewal shoots and increased N fertilization is suggested

○ Review the **CCE LOF YouTube Video for Precision Crop Load Management of Honeycrisp**

<https://www.youtube.com/watch?v=29cF8yOKup0>! Precision pruning is a strategy to reduce the flower bud number per tree to a pre-defined flower bud number through pruning. This video explains how to manage Honeycrisp flower bud load with an optimum of 1.8 flower buds (left after pruning) relative to final fruit number. Honeycrisp growers should use flower bud counts before and after pruning to precisely leave an optimum number of flower buds to guarantee annual production (and reduce biennial bearing) every year. The video also shows how to **dissect and identify a Honeycrisp floral bud from a vegetative bud**. This video focuses on Honeycrisp, however it contains basic pruning techniques that can be applied to all tall spindle orchards.

○ **Are you having issues with low shoot renewal?:**

- A few years ago, we started noticing a **low renewal rate** of pruning cuts on **low vigor cultivars**, especially on NY-1 (SnapDragon) and Honeycrisp trees (on all dwarfing rootstocks). This situation almost completely **'flushed'** the wood for renewal and ended up producing long sections of blind wood along the trunk, without the possibility of any renewal. This negative effect of repetitive pruning with short, or almost absent stubs, and without successful renewal year after year, was more pronounced on very low vigor cultivars. **When we started leaving stubs of 3-4 fingers length (a minimum of 2-3 inches) the rate of renewal was increased by more than 50-60% in these low vigor cultivars.**

• **The 'four-fingers' pruning concept:**

- Today we use the **"four fingers"** pruning concept to **secure renewal** in **low vigor** apple cultivars like Honeycrisp. (1) by leaving a longer stub you can secure the renewal of at least one shoot/stub; (2) you also prevent blind-wood sections along the trunk
- We also use the same pruning concept to **"diffuse" or "calm" vigor** (by pulling of the sap) in **more vigorous cultivars** like Fuji: (1) a short stub can develop a too vigorous/long shoot; (2) a longer stub can renew 2-3 shorter shoots, sometimes with a flower at the tip; (3) multiple shoots/stub diffuse energy and calm sooner = they become more fruitful and are closer to the trunk

- **Use the "3 Ts pruning rules":** Remove anything that is out of balance, especially any branch that is Too thick, and/or Too long, and/or Too narrow. Use the "3 Ts pruning rules" for young plantings.

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