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Lake Ontario Fruit Program
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"*Fruit Facts*" – Tuesday, July 1st, 2025

Mario Miranda Sazo and Janet van Zoeren

To Do Today

Honeycrisp sample collection for Peel sap is next week - attention WNY growers/packers/consultants: We are getting close to the time for collection of 'Honeycrisp' fruit samples for peel sap analysis. Growers should collect fruit samples next week on July 7, 8, 9, and 10. Last day to pick up frozen peels will be by the end of next week.

Next week will be the time to collect 'Honeycrisp' fruit for peel sap analysis. This year the price is **$25 dollars per sample** for peel sap analysis. Sample registration is here https://lof.cce.cornell.edu/event.php?id=2095. If interested to submit a sample, you should collect a 30-fruit sample from each of your Honeycrisp blocks, weigh the sample to get the average fruit weight in grams, peel the fruits from stem end to calyx end, freeze the peel sample, and then contact your CCE LOF fruit extension specialist for submitting the sample and make the payment.

Here is the YouTube Video on How to Prepare and Submit Peel Sap Samples for Peel Sap Analysis:
https://www.youtube.com/watch?v=hYCqE0FwANI

Please email or call Craig (cjk37@cornell.edu; 585-735-5448) or Mario (mrm67@cornell.edu; 315-719-1318) if you are planning to submit a sample this year!

We are at the beginning of the time window (end of June/early July) for leaf sampling collection for Honeycrisp in WNY (don't collect/submit leaves with severe leaf chlorosis): In the last five years we have recommended that growers collect Honeycrisp leaf samples for nutrient analysis about one month earlier than traditionally suggested dates for other apple varieties in early to mid-August. This season the optimal timing for leaf sampling collection is starting **this week** in WNY. There are two reasons for this early leaf sampling:

- Honeycrisp trees typically stop their shoot growth by the third week in June, earlier than many other apple varieties.
- Development of zonal leaf chlorosis affects leaf nutrient concentrations, particularly leaf nitrogen status.

Keep irrigating if you have water available for your blocks ! We have started the phase of cell expansion and water shortages at this point can be critic and hard to recover later on the season. Irrigate if you have trickle installed.

With this hot weather watch irrigation needs also for new plantings: New plantings can stop growth if irrigation is not applied (if available at your farm). Please remember that irrigation is an essential tool for maximum tree growth on new plantings.

Frequency of irrigation depends on soil type: With sandy soils, water should be added either daily or every 2 days. With silt or clay soils, the daily amount of water needed can be added up for several days.

Remember, if irrigation fails, fails nutrition.

Now is the time to prune one year old shoots in the orchard and nursery:

It is applicable for almost any grafted orchard situation (side-grafted, top-worked, or beaver-grafted), green or 'ellepot' trees planted in previous summers, plant-in-place projects (budded or bench-grafted trees established in previous seasons), multileader trees, and for the 'grow-through' apple tree production method, you can now prune the one-year old shoots and leave them with a stub of 4-fingers length (for all at the top and some in the middle of the tree). Leave a longer fruiting unit especially at the bottom of the tree if they have 2-3 flower buds. Use your own hand or 'una cuarta' in the Spanish language to guide the length of the pruning cut. The fruitful fruiting units after this

type of pruning should be 12-16 inches length (according to the in-row spacing or the space between leaders/root if it's a high density grafted orchard). Favor/produce a more tubular type of tree via pruning now.

Growers should consider the ethrel spray program for return bloom for strongly biennial cultivars like Honeycrisp (the same program can be started for Fuji as its flower initiation/formation starts after Honeycrisp). There is a risk of Ethephon and high temperatures. We recommend not to spray if temperatures will be above 85F. Growers should avoid/skip any heat with temps close or above 85°F for the return bloom sprays with Ethrel this week.

Sudangrass and buckwheat have different properties, so the management goal and field condition will determine which is the right one for you:

- **Sudangrass** is often chosen for **improving soil organic matter**. It produces a strong root system and lots of biomass. The deep root system helps reduce subsurface hardness. Sudangrass is also a good choice for reducing root-knot nematode pressure.
    - Sudangrass is suitable for short, 8-10 week plantings. Seeding rates are 30 lbs/acre for biomass and nematode control and 50 lbs/acre for weed control.
    - Seeding rates are June through mid-August (for sudangrass)
    - Seeding rates are July through mid-August (for sorghum-sudangrass)
    - This grass grows very fast, so keep an eye on it. Mow the first time when it reaches 3 feet and the second time while the flail mower can still chop it well.
    - If sudangrass gets too big to control, it will be killed by frost and make a nice winter mulch. However, the biofumigant effect will be lost.
    - Sudangrass needs a final flail mowing and immediate incorporation to suppress nematodes.
    - Please notice that we have seen good results with the additional strip-seeding of radish tillage (by around August 10-15) in the future in-row spacing of an orchard to be planted the following spring.
- **Buckwheat** is best known for **weed suppression and mellowing the soil.** It covers the ground earlier than sudangrass, especially if seeded in early June, and outcompetes weeds that may establish in sudangrass. Sudangrass requires a higher seeding rate for effective weed suppression.
    - Both cover crops should be mowed after about 40 days. This is the end of the season for buckwheat, but the beginning of major root growth for sudangrass.
    - To avoid volunteer buckwheat seed, kill the crop before there are filled green seeds on the plant. This takes about 40 days from a July planting or 50 days from a June planting.
    - Buckwheat seed is available from some local farm seed retailers and is relatively cheap. The variety does not matter, and many suppliers don't identify any variety. A bag is enough to seed an acre.

In previous Fruit Facts, we have mentioned that there is an opportunity to mix the sorghum sudangrass with cowpea or sunnhemp to get some nitrogen into the soil and maximize the sudangrass biomass this 2025 season.

- If you have any doubt about this new recommendation and/or how to get the best use of cover crops during pre-site preparations this summer, don't hesitate to contact Dr. Deborah Aller (Cornell soil health specialist for tree fruit perennial systems) to da352@cornell.edu and/or call 631-902-1582 (cell phone).

2025 Mechanical Summer Hedging - Timing by Varietal Fruit Size: We encourage growers to target their mechanical summer pruning time based on the fruit-size characteristics of the apple cultivar. For large-fruited varieties such as 'Honeycrisp' – where we intentionally want to control or reduce fruit size at harvest and especially during a rainy summer – we recommend an "early" timing for mechanical summer pruning and a "late" timing for small-fruited varieties such as 'Gala' to avoid a negative effect on fruit size before harvest. Medium-sized varieties should be mechanically summer pruned after 'Honeycrisp' and before 'Gala' to have the same controlling effect on fruit size.

Under New York weather conditions, a mechanical summer pruning program should be started for 'Honeycrisp' as early as June 20–25, and for 'Gala' approximately 4–5 weeks later. In some cases, a 'Gala' block could even be hedged 7–10 days before harvest to facilitate the use of harvest platforms.

Disease and Pest Outlook:

- **Extreme heat last week triggered a fireblight infection in many orchards.**
  - The recommendation to address summer shoot blight is to apply prohexiadione calcium (i.e. Kudos) at 12 oz/100 gal, then allow the trees to take it up for at least a day, and then to apply a copper (i.e. CS2005, the Badge Products, MasterCop, or Cueva). Then prune out strikes on a dry day (or remove the entire tree in many cases – it may be tempting to try to save the tree but only do so if you will be able to really remove all the bacteria).
  - Double Nickel and Cueva can be a very good combination.

- **Oblique banded leafroller first spray should have gone on last week or over the weekend.**
  - Eggs are hatching, and a larvicide applied last week or over the weekend will continue to manage larvae that are hatching now. Reapply 10 days after the first application.
  - Adult moth flight numbers have been higher than usual in the traps I have been checking, so don't miss the window for OBLR management. There is a plethora of effective materials for OBLR management, including the group 28s (Altacor, Exirel, Verdedryn), and Delegate, Entrust, and Intrepid.

- **Spotted wing drosophila has now been caught on both sides of the city, and all farms with susceptible fruit should be managing for SWD.**
  - For insecticide options for SWD, view the SWD Insecticide Quick Guide for Berries (updated in 2025) and the 2024 Cherry Fruit Fly Quick Guide (updated in 2024).
  - For updates on SWD and other pests, sign up now for the **NY Berry Pest Monitoring Blog.**

- **Woolly apple aphid** continues to build up in many blocks, although the rains seem to have set them back some. Scout now and manage WAA problem blocks before they have time to build up large colonies that can protect the center aphids from any contact with a spray. WAA can be controlled by Beleaf, Sefina, or Sivanto Prime at this timing. Those will also manage the **rosy apple and green/spirea aphids, which have been present in high numbers** (and likely to build up populations quickly in the heat).

- A single **apple maggot fly** was trapped in Niagara county this week, on a baited red sticky sphere. If you plan to monitor for apple maggot, hang traps now. The threshold for a baited trap is a cumulative 5 apple maggot flies per trap. Apple maggot management options include the diamides: Altacor (5day PHI) and Exirel (3day PHI), neonicotinoid: Assail (7day PHI), organophosphate: Imidan (7day PHI), and the pyrethroids: Baythroid (7day PHI) and Danitol and Mustant Maxx (both 14day PHI).

- **Summer diseases** such as **sooty blotch and flyspeck**, **black rot, white rot and bitter rot** should be managed now as we move into mid-summer.
  - Products that are effective for SBFS, and black, white, and bitter rots include Flint Extra (14day PHI), Inspire Super (14day PHI), Luna Sensation (14day PHI), Merivon (0day PHI), and Pristine (0day PHI).
  - **In general, fungicide covers for the rots go on every 14 days**, but remember that 1.5" of rainfall would trigger a re-cover (rule of thumb, varies some by product).

- **Use caution with glyphosate yet this year.** Mid to late summer applications of glyphosate may damage the trees, as apples will begin to translocate energy back into their roots as we move past the summer solstice. As a rule of thumb, the final recommended date for glyphosate applications in an orchard is sometime around June 21st, or maybe you can get away with as late as July 4th or later if you are very careful to shield the trunk from any spray contact, and to apply during perfect weather conditions to avoid drift and foliar contact.

- **Continue to manage powdery mildew** until we reach terminal bud set. Many blocks have very high PM pressure this year, and it is likely to get worse this week. Some options for PM control include Flint extra (14day PHI), Luna Sensation (14day PHI), Merivon (0day PHI), Rally (14day PHI), and others.

Pear

- **Fabraea leaf spot**. If you have had Fabraea in your peach block previously (note Bosc is especially susceptible), you will want to keep trees covered now through July 4th. Options include Topsin M, Ziram, Manzate and Syllit.

Stone Fruit

- **Begin cherry fruit fly management as soon as fruits begin to blush.**
    - For insecticide options for cherry fruit flies (and SWD), view the 2024 Cherry Fruit Fly Quick Guide (updated in 2024).
    - The quarantine zone for European Cherry Fruit Fly continues to expand. **Please see Fruit Notes article which we will be sending out tomorrow for an update on the quarantine regulations for ECFF for 2025!**
- **Peach Diseases (rusty spot, bacterial spot, brown rot)**: Captan, Miravis, Inspire Super, and Merivon will control brown rot and peach scab. Be sure to rotate active ingredients to delay resistance. The addition of a copper (i.e. Cueva) will help blocks with a history of bacterial spot.

Good to Know

Organic matter tends to act like a sponge: It holds water and nutrients in the soil and releases them slowly over time. Soil scientists report that for every one percent of organic matter content, the soil can hold 16,500 gallons of tree-available water per acre of soil down to one foot deep.

- **Increased water holding** is an important characteristic in our soils of Western NY. It is even more crucial in blocks without trickle irrigation. At this time of the year, a mature spindle tree needs around 4-5 gallons of water per day to keep up with tree evapotranspiration needs. Water stress can lead to small-sized fruit and calcium disorders, like bitter pit in Honeycrisp. Young trees need only small @ 2-3 gallons/tree/day, 2-3 times per week, but frequent doses of water for additional tree growth this year
- **Soil organic matter acts like a bank for soil nutrients.** Think of each of the negative charges on an organic matter particle like a **parking spot** for a nutrient ion. Cationic nutrients, such as calcium (Ca^{2+}), are parked and ready to be knocked out into the soil solution where tree roots can access them. Root exudates from tree's rootstocks help "knock" nutrients into solution by trading these nutrients (such as calcium) with hydrogen ions. The higher the cation exchange capacity (CEC), the more of these parking spaces for nutrients are present in the soil. More nutrients can then be held instead of being washed away into deep soil layers where trees cannot access them.
- Organic matter not only banks nutrients but also supplies **nitrogen through mineralization**. Organic matter contains about five percent nitrogen, and two to four percent of this is mineralized every year. For example, a soil with three percent organic matter can make available sixty pounds of nitrogen per acre every year (as long as soil organic matter is maintained).