



“Fruit Facts” – Thursday, August 25 2022

End of the regularly scheduled Fruit Facts issues

Today's Fruit Facts is the final regular scheduled Fruit Facts of the season. As we move into harvest season, be sure you are subscribed to receive Craig's Harvest Maturity Reports (he has already sent one out this year, so if you didn't receive it, and would like to, be sure to sign up on our website or contact Natalie at the Orleans office).

We will continue to update you with any important horticultural or IPM reminders or updates, but will no longer be providing regular weekly updates.

Happy harvest to all!

IPM Notes...Janet van Zoeren

Time to finish strong with a tight fungicide program for **black rot, white rot and bitter rot**. Fungicide covers for the rots go on every 14-21 days.

Products that are effective for **black and white rots** include Captan, Merivon and Pristine (0day PHI), Flint and Luna Sensation (14day PHI), and Sovran (30day PHI). Sites with frogeye leafspot foliar symptoms or dried up rot fruit from last year need to be especially careful to keep covered for rots this summer.

Best products for **bitter rot** include Captan and Merivon (0day PHI) and Luna Sensation (14day PHI).

Sooty blotch and flyspeck applications can be timed using the [NEWA model](http://newa.cornell.edu) (newa.cornell.edu). Products that are effective for SBFS include Captan, Double Nickel, Merivon and Pristine (0day PHI), Flint, Indar and Luna Sensation (14day PHI), and Aprovia, Miravis and Sovran (30day PHI).

Be sure not to rely too heavily on Captan, for resistance management, and to be aware of predicted harvest dates and PHIs.

I am seeing high **mite** pressure at some locations. If more than a third of the leaves in a block have mites on them, it is time to consider a miticide. For a more exact sampling protocol go to the Recommends page 79. If you reach that threshold, check the recommends for a full list of products, or consider one of: Acramite, Banter, Enidor, Magister or Nealta (7day PHI), Kanemite, Portal, or Zeal (14day PHI), or Nexter (25day PHI).

Woolly apple aphid colonies are showing up in many orchards – usually quite localized but occasionally at high density where present. They usually show up deeper into the canopy, often in the angle of a branch, twig crotches, or pruning cuts. Some products effective on WAA include Admire Pro or Assail (7day PHI), Sivanto Prime (14day PHI) or Beleaf (21day PHI). A heavy hitter to bring in when you just can't get a population under control is Diazinon (21day PHI, if your market allows).

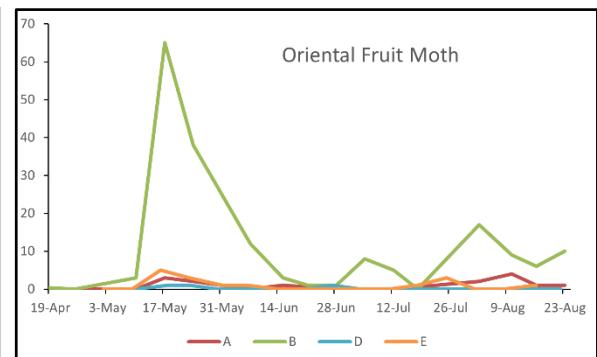
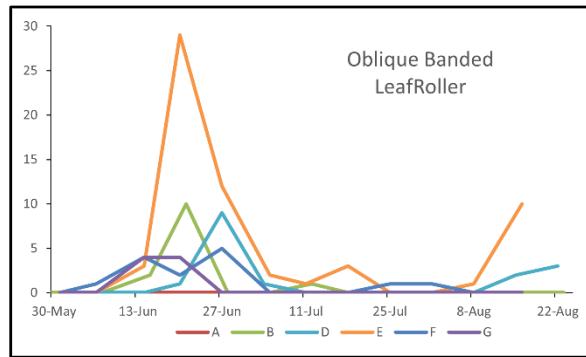
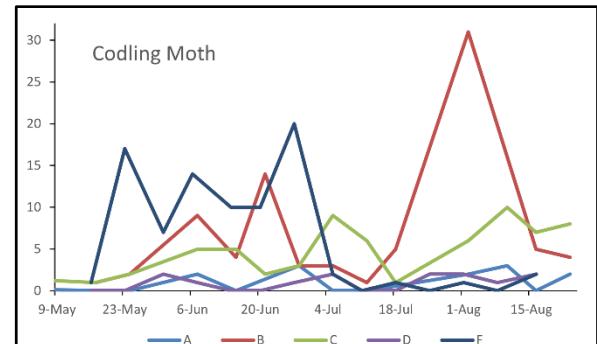
If you do find a WAA colony, please contact me! I would like to collect a sample at your farm to help the Apple Rootstock Breeding Program perform genetic mapping of this pest.

Apple scab foliar symptoms are present in many blocks; I've not yet seen much fruit scab symptoms. In blocks with foliar scab, consider single-site products such as Sercadis or Merivon (0day PHI), Flint, Inspire Super, Luna Sensation, or Rhyme (14day PHI) or Aprovis or Miravis (30day PHI).

Brown marmorated stink bug has been trapped at several orchards. Just one bug per trap so far, so we are not yet near to the cumulative 10 adult stink bugs per trap threshold. **Brigade 2EC and Brigade WSB (14day PHI) are both now registered for use on apples against stink bugs (plus several other insect species) in NY.** Keep in mind that you will need to purchase and use only 2022 product that has labeling for use on apples and against stink bug for the use to be legal. You cannot use

up your old products when applying for stink bug control. All Section 18s have expired and are no longer valid. Lower PHI products (with lower efficacy) include Baythroid and Leverage (7day PHI) and Surround (0day PHI).

Oblique banded leafroller second generation flight has begun. **Oriental fruit moth and codling moth** continues to fly, and in some locations numbers are above threshold (OFM: 5/trap/week; CM: 10/trap/week). Orchards with continued high trap catch of OFM may want to put a final cover on to keep fruit clean through to the end of harvest, and to remove the overwintering generation to get a head start on next year. Low PHI options for pome fruits to control OFM include: Exirel (3day PHI), Altacor (5day PHI), and Assail and Delegate (7day PHI).



Apple maggot fly flight should be nearly over, although some are still flying. A suggested action threshold is when 5 or more adults are caught on a baited red sphere trap per week. If an insecticide is necessary, apple maggot management options include Exirel (3day PHI), Altacor (5day PHI), Assail, Baythroid, Imidan and Verdepryn (7day PHI), Avaunt, Danitol and Mustang Maxx (14day PHI).

Any questions about pest management, please call or email me: [jев67@cornell.edu](mailto:jev67@cornell.edu), 585 797 8368.

Horticultural Notes...Mario Miranda Sazo

2022 Hispanic fruit tour hosted by Zingler Farms was a great success yesterday: We would like to thank the several WNY growers who sent almost **120 Hispanic employees** to the 2022 Cornell Hispanic fruit tour. Cornell Small Farms Program and Farm Credit East provided financial support to make the 7th Cornell Hispanic fruit tour a great success. It was a very memorable tour, with record participation numbers, and filled with so much practical and useful information discussed with orchard manager Bulmaro Solis and his orchard crew of Zingler farms. Many thanks to Mike and Jimmy Zingler for supporting CSFP, NYSIPM, and CCE LOF, and for making the tour a great success in 2022!



Group picture of Hispanic participants and Cornell speakers who participated at the 2022 Cornell Hispanic fruit tour at Zingler Farms, Holley, on Wednesday August 24, 2022 (photo courtesy: Elizabeth Tee, CCE LOF).

Pre-harvest drop control in 2022:

- **McIntosh** We recommend a combined application of ReTain (1 pouch) + NAA (10ppm) 3 weeks before expected first harvest when August weather is warm (but not hot) such as 2022. For WNY we have estimated the start of McIntosh harvest for early sites to begin September 10. Thus, the suggested date for the first application of ReTain + NAA would be 3 weeks earlier on Aug. 20. If hot weather continues into September, then apply a second application of the same tank mix 2 weeks after the first application.
- With **Gala** we recommend the application of only $\frac{1}{2}$ pouch/acre of ReTain for older less well-colored strains and 1 pouch/acre of the newer high coloring strains. Apply 2 weeks (or even 1 week) before expected first harvest. In 2022 we estimate Gala harvest will begin on Sept 6 thus the suggested date to apply ReTain at the 2-week timing is August 23. ReTain will permit Gala fruit to remain on the tree an additional 14-21 days resulting in improved fruit size (1 box size with a 21-day delay), good color development. ReTain delays maturity but results in a more even maturity on the tree. Multiple picks on Gala can be reduced to 2 or even 1 picking in some cases. ReTain also reduces fruit stem end cracking and greasiness that are problems as Gala fruits mature in the second and third picks. ReTain also has reduced Stem End Flesh Browning during storage (Chris Watkins data) and thus ReTain is a suggested strategy for fruit destined for long term storage where Stem End Flesh Browning can be a severe problem.
- **Honeycrisp** is a variable ethylene producing variety that has very uneven ripening but can have significant pre-harvest drop in some years. We recommend a very low rate of 1/3 pouch per acre of ReTain applied 1-2 weeks before expected harvest in blocks which have had a drop problem in the past. In 2022 we estimate Honeycrisp harvest to begin on Sept. 12 and our suggested application date for the 2-week timing is August 29. A note of caution: ReTain (or Harvista) on Honeycrisp can have negative consequences during storage of this variety. If the risk of bitter pit is high, then ReTain will increase the bitter pit incidence after harvest. The decision on whether to use ReTain or Harvista on Honeycrisp should be made only after an assessment of the risk of bitter pit risk.
- For late September and October varieties the negative effect of ReTain on fruit color development is much less than in early September varieties, thus we suggest the use of the full pouch/acre of ReTain to provide a consistent reduction of fruit drop and greasiness. For late September and October varieties which are harvested under cooler conditions, application timing should be 3 weeks before normal harvest date (9-15 of September). Treating **Empire**, **Delicious** and **Jonagold** provides some flexibility in harvest date since those three varieties need to be harvested at about the same time. **Cortland** and **Jonagold** both suffer from greasiness problems as the fruit mature and ReTain applied 3 weeks before normal harvest can be a very effective control strategy. **Idared** and **Rome** both suffer from internal flesh pigmentation (bleeding), which can result in rejection of the fruit at the processing plant. Our research indicates this problem can be controlled effectively with $\frac{1}{2}$ pouch/acre of ReTain applied in mid-September.

Reminder: It is critical to include an organosilicone surfactant with ReTain especially when combined with NAA. The organosilicone surfactant improves the uptake of ReTain better than other surfactants thus ensuring that sufficient ReTain is absorbed by the leaf to suppress the stimulatory effect of NAA on ethylene production.

Harvista is a very effective drop control product which can be applied closer to harvest than ReTain (1 week or less before anticipated harvest). It does not suppress ethylene production but inhibits its action in the fruit and reduces fruit drop. It has a much more rapid action in the plant and can prevent fruit drop even when applied close to harvest. It has a long-lasting effect and will keep fruit on the tree more than 4+ weeks which is longer than ReTain. However, like ReTain it also delays red color development. Harvista's active ingredient is MCP which is a gas and thus must be applied with specialized equipment to get consistent results. A note of caution of using Harvista on Honeycrisp. If the risk of bitter pit is high, then Harvista will increase the bitter pit incidence after harvest. The decision on whether to use Harvista on Honeycrisp should be made only after an assessment of the risk of bitter pit risk. **Consult your AgroFresh representative for more information, and application timing, based on the starch pattern index.**

Time to start budding rootstocks for the on-farm nursery: Collect healthy current season pencil-sized shoots of the variety needed. Remove the smaller caliper wood toward the tip of the shoot and the older, less well formed buds near the base. Cut off all leaf blades leaving a portion of the leaf stem as you collect shoots suitable for budding. This will prevent shoots from rapidly dehydrating and will later give the budder a handle for placing the bud. Put collected wood - wrapped in wet newspaper or burlap - in a cooler to keep cold during the collection phase and transport to the field for budding. Please make sure your budders have enough water for this intense and meticulous type of job during the recent heat and windy weather. Some professional budders are budding until 3,000 or 4,000 trees per day.

Avoid summer pruning on or before days with expected excess heat and sunlight: Please make sure that summer pruning crews don't remove too much new shoots on the trunk. They are critical as replacement branches for limb renewal pruning of tall spindle and vertical axe apple trees. More general summer pruning recommendations are listed below...continue reading for more details!

Mechanical pruning: By now growers should have mechanically pruned all their Premier, colored, and regular strains of 'Honeycrisp' and should be getting ready to mechanically prune the rest of the cultivars. Please wait and hedge the small-fruited cultivars like NY-1 and Gala at the end and just 7-10 days prior to harvest. Don't forget to continue small/frequent irrigation cycles until the day of harvest for these small fruited cultivars.

Deployment of reflective fabric for Premier 'Honeycrisp', Minneiska, and other early cultivars: The deployment of reflective fabrics for Premier 'Honeycrisp' should be done by now. If possible, the deployment of fabrics for Minneiska blocks should start this weekend or early next week. I encourage growers to put out their reflective fabrics on virtually all early/highly profitable cultivars for improved fruit coloring. Growers should deploy their reflective fabrics **10 days to 2 weeks before harvest on early varieties**.

Time to start thinking about leaf tissue analysis: For **non-Honeycrisp cultivars**, early to mid-August is a good time for taking leaf samples for nutrient analysis. For Honeycrisp leaves (all strains), it is kind of late now. They should have been sampled at the end of June or early July (as recommended in previous *Fruit Facts*).

What about if you missed the window in late June/early July for sampling 'Honeycrisp' leaves?: It should still be ok if you take leaves without zonal chlorosis for nutrient analysis at this time of the year. If you decide to sample 'Honeycrisp' leaves now along with other apple varieties, you should select the most recent mature leaves without zonal chlorosis for best results! Review the pictures of mature leaves with or without zonal chlorosis that we sent last week!

Summer pruning sweet cherries should be done after harvest and during dry periods which allow cuts to dry out or heal before rain. The key to pruning is to leave a **6-12 inches heading stub** (no flush cuts!) to reduce the movement of bacteria into the trunk or main limbs and to leave vegetative buds for regrowth of a new branch.

Summer pruning peaches: To keep shoots growing in the lower portion of the tree they must receive adequate light after harvest. This requires removing upper branches that shade the interior of an open center tree or a V-tree. Prune out most, if not all of the vigorous upright growth in the tree, which shades the lower half of the tree. Prune it all the way to where the branch originates. Keep good light exposure to the bottom of the tree by removing vigorous and upright interior growth. Limit the height of the tree by head tops of scaffold arms maintaining approximately 10-12 feet in height and keeping tops very narrow and approximately in line with the main trunks by removing all large wood in the top facing in the row.

Use moderation if you start summer pruning apple blocks under very hot conditions:

- **Do not summer prune apple trees until they have filled their allotted space.** Pruning immature trees in the summer will help induce enhanced color but will set back tree growth and future yield potential for that block. If your trees appear to need summer pruning before filling the allotted space, then one or more of several mistakes have been made. (1) Trees have been set too far apart and they have reached mature growth habit without filling their space. (2) There has been excessive and improper winter pruning with too many heading back cuts and too few thinning out cuts. (3) Excessive vigor was encouraged by excessive fertilization.
- **Start summer pruning after the terminal bud shoots have stopped growing.** By waiting, you will prevent "witches broom" growth from occurring near the cut and will reduce the risk of winter injury resulting from excessive late shoot growth. Determining actual terminal bud set is difficult. Many times buds appear set then start to grow after a rain. Judge terminal bud set on lateral and terminal shoots, not on upright suckers produced on the top of horizontal scaffolds. August 1st in WNY is a good rule of thumb date but many blocks can be started much earlier. It is best to wait as late as possible before summer pruning. Delayed pruning reduces the potential damage from hail in late summer storms. Fruit exposed by summer pruning is much more susceptible to damage by even light hail. In years with high light, sunburn can be a problem on fruit suddenly exposed by summer pruning.

- **Generally, early maturing varieties should be pruned first.** These normally shut down growth first. Summer pruning will still result in good coloring of Jersey Mac's even with little more than a week before the first pick. Remember, there is always considerable block to block variation. Check each block since differences in weed control, soil type, and fertilizer programs can all influence the time of terminal bud set. Varietal response will also influence your order of pruning. Idareds and Jonagolds can be pruned early and may reduce sunburn. Sunburning on these varieties appears to be worse when tender, more mature apples are suddenly exposed to direct sunlight. Younger apples appear to be more resistant. Therefore, prune this variety relatively early in the schedule. Jonagold appears to fail to properly mature in blocks where heavy summer pruning is performed early so do not overprune.
- **Do as little cutting as possible when summer pruning.** Always keep the objective in mind when pruning. If your objective is to improve light interception and fruit color, limit pruning to the removal of limbs and foliage that prevents light from reaching the fruit. Excess removal of foliage will weaken the tree and may harm the fruit's ability to mature. If your objective is to contain tree size, cut back to weak side limbs or fruiting spurs just as you would in the winter on those same branches. Don't be afraid to remove some apples. Remember that if you are making the proper cut for color there will be better apples underneath.

Reasons to continue irrigation practices at your farm or on-farm nursery:

- Water stress at any time of the season reduces fruit growth rate with permanent loss in fruit size, which is difficult to recover later.
- Also, very dry soil conditions can reduce the availability of nitrogen, phosphorous, potassium, calcium, and boron to tree roots.
- Don't be afraid to turn on the irrigation in young blocks and mature plantings if rainfall doesn't occur at your site the next few days, or if hot conditions suddenly arrive in WNY.
- Focus irrigation on small fruited varieties like Gala, Empire, Macoun, and continue "babysitting" NY1 with frequent but small amounts of water applied at least 2-3 times per week, providing 2-3 gallons per tree as minimum.
- New Honeycrisp plantings (and those 'green trees' orchards) without trickle should be watered with tanks and a hose, 2-3 times per week (same amount of water/tree as previously suggested).
- Please remember that any lack of rainfall coupled with a heat can affect growth of a weak tree and fruit growth rate at this stage.
- **Remember, if irrigation fails, fails nutrition (including the needed soil calcium uptake for Honeycrisp!).**
- Honeycrisp, Gala, and NY-1 fruit producers, especially those located in the west side of Rochester, should not be afraid to turn on trickle irrigation in young blocks and mature plantings with the current low soil moisture conditions in that part of our region.

Prepare for harvest. Now is the time to make a list of everything you will need for harvest and fix or acquire it. Check inventory and condition of ladders, picking buckets, bin tags, staplers, bin trailers, forks, wet weather gear, markers, etc.

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 2022. 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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