



## **“Fruit Facts” – Saturday, August 20 2022**

### **This week is the Hispanic Summer Fruit Tour - Wednesday August 24 (8:30am until 1:30pm):**

The tour will start at **16603 Skillington Rd, Holley, NY** (hosted by Zingler Farms). Tour participants should arrive not later than 8:15am to start the educational sessions at **8:30am**.

**Registration** for the Hispanic tour (including food and beverages to be offered at the end of the tour) is **FREE** thanks to funds and support provided by the Cornell Small Farms Program and a generous gift provided by Farm Credit East. For additional questions, contact Mario Miranda Sazo [mrm67@cornell.edu](mailto:mrm67@cornell.edu), (315) 719-1318 or Mildred Alvarado [ma853@cornell.edu](mailto:ma853@cornell.edu) (413-406-9760).

### **IMPORTANT - Registration process for the 2022 Hispanic summer fruit tour:**

**Pre-registration will be required for attendance of your Hispanic employees for any part of the Hispanic tour this year (the last day for pre-registration will be Monday August 22, 2022 by 5pm).** It is especially important for food counts/seating, and handouts.

We encourage all growers to register their Hispanic employees by **emailing a list of participants** with first name(s) and second last name(s) plus a phone number from your organization to Mildred Alvarado ([ma853@cornell.edu](mailto:ma853@cornell.edu)), Nicole Waters ([nw42@cornell.edu](mailto:nw42@cornell.edu)), or Mario ([mrm67@cornell.edu](mailto:mrm67@cornell.edu)). Please contact Mario if you need more specifics about the tour.

**Please be aware that the educational components of the tour will be presented only in the Spanish language. There won't be on-site translation to the English language during this tour.**

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### **New LOF YouTube video about the use of reflective fabrics for improved fruit coloring – new release!**

Check the recently posted YouTube video titled Using Reflective Materials for Improved Fruit Color. A new video describing how/when to deploy reflective fabrics and the economics on return on investment (ROI) showing the financial gains or benefits by adopting this technology: <https://youtu.be/hslkkRlojrQ>

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### **The importance of light and reflective fabric talks now available on our LOF YouTube Channel**

Review Dr. Terence Robinson's talk titled "The importance of diffuse scattering and factors that influence light interception, distribution, and reflection from the ground", presented at the 2022 Cornell Winter Fruit Conference: <https://youtu.be/QDlpK7jwMul>

Review Dr. Luis Gonzalez's talk titled 'The use of ground cover materials to increase fruit color on Honeycrisp, NY-1, NY-2, and Evercrisp', presented at the 2022 Cornell Winter Fruit Conference: <https://youtu.be/yu00XRS5F1I>

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 frog-eye 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. A recommended sampling protocol for mites is to pick 4 full-size leaves (not new foliage) from each of 5 intermittently spaced trees. Look at these under magnification, and classify as “mites present” or “no mites present”. If more than a third of the leaves have mites on them, sample another 5 trees. If nearly all of the leaves have mites, it is time to consider a miticide. For a more exact protocol, and to see effective products, 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, Envidor, 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).

**Apple maggot flies** are now showing up in low numbers on our baited monitoring traps. 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).

**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).

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

**Time to collect Honeycrisp fruit for the passive bitter pit prediction model:** The suggested sampling timing for collection of Honeycrisp fruit for the passive bitter pit prediction model is between **Friday August 19 and Tuesday August 23**.

Below is the protocol:

- 1) Between **Friday August 19 and Tuesday August 23**, select 100 representative fruit from a block (growers who submitted peel samples in July should sample the same trees/area of the block now in August). Try to target August 19-20 to give extra time before harvest begins. If you did not do so last year, flag the area and/or row(s) and/or trees to be sampled in 2022 for future fruit samplings in 2022 and beyond.
  - Sampling more trees is better than fewer trees
  - No less than 20 trees/block
  - No more than 2-3 apples/tree
  - Use a couple of cardboard fruit boxes or a small wooden or plastic crate or lug or onion bags
- 2) Label with farm name, block #, date picked/put in storage, contact name #, email
- 3) Take to a participating storage
  - Wayne
    - Pomona & Empire growers, and others can take their fruit to Lake Country Storage
    - Other options: KM Davies (Williamson), Cherry Lawn (Sodus)
  - Orleans
    - Lake Ontario Fruit, Inc
    - HH. Dobbins
  - Niagara
    - Niagara Fresh (Bucolo Cold Storage)
    - Sun Orchard Fruit Company
- 4) LOF will evaluate fruit after ~ 21 days at room temp (September 8-12)
- 5) Cornell will send data to growers and their packers along with results of the peel sap nutrient levels, hopefully before 1<sup>st</sup> pick to assist in storage decisions for each block of fruit to maximize its post-harvest performance.

**Note:** Even if you did not submit peel samples in July, it is still beneficial to collect fruit for the passive model. An accurate assessment of bitter pit risk can help determine storage and marketing decisions that can save you money.

For more background information, please review 202's (8-11-20) Zoom webinar titled "*Honeycrisp Bitter Pit Prediction Models*" in which Drs. Terence Robinson and Chris Watkins presented on the continuation of our year-long Precision Crop Load Management in Honeycrisp. Please view the webinar here: <https://youtu.be/kztJuVtY4yY>. In addition, the presenter's PowerPoint presentations are located here: [https://rvpadmin.cce.cornell.edu/uploads/doc\\_912.pdf](https://rvpadmin.cce.cornell.edu/uploads/doc_912.pdf).

**Questions?** Contact Mario (315-719-1318, [mrm67@cornell.edu](mailto:mrm67@cornell.edu)) or Craig (585-735-5448, [cjk37@cornell.edu](mailto:cjk37@cornell.edu)).

### 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 ½ 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 ½ 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.**

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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