



**“Fruit Facts” – Tuesday, May 24 2022**

**Updated version of Malusim to Guide Chemical Thinning Decisions is Available !**

A new updated version of Malusim mobile apps for iOS and Android are both now available in the respective app stores. The web version of the app is also up to date (see below for more details provided by Dr. Robinson yesterday).

**Registration is Open for 2022 Virtual Meetups about Labor and AG-Technologies this Summer!**

CCE LOF will be conducting again a second round of nationwide virtual meetups this summer. Last year we focused on ‘Honeycrisp’ and had a great success with this new/more informal format. **We plan to cover labor and AG-technologies this time.**

The link to the one-page flyer is here: [https://rvpadmin.cce.cornell.edu/pdf/event\\_new/pdf96.pdf](https://rvpadmin.cce.cornell.edu/pdf/event_new/pdf96.pdf) with the agenda that we recently began to use to announce this nationwide effort. This series of virtual meetups (7pm, EST), are **Free!**

Please register as soon as possible here: [bit.ly/orchardmeetups](https://bit.ly/orchardmeetups).

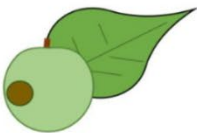


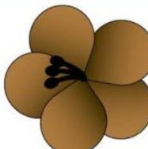
**IPM Notes...Janet van Zoeren**

We are just finishing up a rainy weekend, and hopefully most everyone got an application on to control both fire blight and apple scab over the weekend. Although we’re nearing the end of primary scab season and blossom blight infection opportunities, now is not the time to take the foot off the gas. There is another predicted scab and fire blight infection period to begin tomorrow (Wednesday), so check your local weather and NEWA stations, and get an application on maybe today or early tomorrow morning.

**If you have reason to suspect Strep resistance on your farm**, do not use Strep as it will be a waste of your money. Kasumin and the biologicals will be your best options. Note that Kasumin does not have good kickback activity, so it is especially critical to time sprays before predicted rain events.

The below visuals as well as further information can be found at the Cox lab’s blog:

<https://blogs.cornell.edu/coxlab/2022/05/01/apple-scab-fire-blight-disease-forecasting-5-1-22/>.

	APPLE SCAB Infection Predicted	APPLE SCAB Infection Details	FIRE BLIGHT Infection Predicted	FIRE BLIGHT Infection Details
<b>WAYNE COUNTY</b>	 5/25-5/27 Moderate	Leaf Wetness: 36 hours  Remaining ascospore release: 3%	 Moderate	Highest EIP: 121  Highest DH: 7
<b>NIAGARA COUNTY</b>	 5/25-5/27 Moderate	Leaf Wetness: 36 hours  Ascospore release: 15%	 5/22-5/25 High	Highest EIP: 427  Highest DH: 38

## Caterpillars.

**Oriental fruit moth** numbers have been very high at many locations; they were high last year, and are even more so this year. Flight has begun across most of the region. At high pressure inland site, plan to include a high efficacy OFM product in the tank in the next few days. Some insecticide options for OFM in apple include Imidan (also controls PC), Verdepryn (also controls PC), Assail, Delegate, Rimon, Altacor and Exirel (also controls PC). At lower pressure and especially at lakeside sites, you probably still have another week before OFM caterpillars begin to hatch.

**Codling moth** is only just starting to show up in traps. At high pressure inland sites, you may want to consider an ovicide such as Rimon sometime this week. Larvicide management periods are still at least a week off across the region. Monitoring traps and mating disruptors should have been hung already.

**Oblique Banded Leafroller** larvae have been seen feeding and webbing on new foliage. Adults have not yet begun to emerge. Include Proclaim, Rimon, or Intrepid in the petal fall spray if you have a history of high **Oblique Banded Leafroller** damage.

**Gypsy moth** has been seen in a few orchards and surrounding woodlots in the past week. So far, I have not seen “outbreak” levels of infestations anywhere this year, but considering the number we saw last year, do be on the lookout for them. At this point I have seen 1<sup>st</sup> and 2<sup>nd</sup> generation larvae – Dipel or other similar Bt lep products provide excellent control of gypsy moth when they are still in these early instars.



OBLR leaf roll (left); open it up to find the larva inside (right).  
Photos courtesy of Elizabeth Tee.

**Plum Curculio** management begins as soon as petals are completely off all the trees in the block. Stone fruit should already have been covered, with a follow up application 10-14 days later. Materials effective against PC include: Avaunt, Actara (also will control **Rosy Apple Aphid**), Imidan, Sevin, and pyrethroids such as Danitol, Baythroid, Lambda-Cy, Warrior, and Proaxis. The NEWA model can be used to determine how many PC cover sprays will be necessary. More on that next week.

**San Jose Scale** can be controlled by Movento (with a penetrating adjuvant) Sivanto, Esteem or Centaur, generally to be applied around the PF or 1<sup>st</sup> cover timing.

**Wolly apple aphid** can be controlled by Beleaf, Movento, Sefina, Sivanto or Diazinon at this timing.

**Mites.** Consider scouting the underside of leaves for European red mite. If you find high populations, there are a bunch of highly effective products you can use: Agri-Mek, Apollo, Onager, Savey, Zeal, Kanemite, Nexter, Portal, Acramite, Envidor, Nealta, or Banter. If you already applied for ERM, be sure to rotate to a new IRAC code.

**Dogwood borer** has started showing up in blocks where it hasn't been seen previously, due to the removal of Lorsban from our registered products. Dogwood borer will be most problematic in blocks on rootstock prone to burr knots. If ever you've considered using mating disruption for DWB, this is the year to try it (before your population has a chance to get a foothold). They are currently in the caterpillar to pupa stage; disruptors should be hung asap to catch the first emerging adults.

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

## Horticultural Notes...Mario Miranda Sazo

**Updated version of Malusim to Guide Chemical Thinning Decisions is Available Today!:** A new updated version of Malusim mobile apps for iOS and Android are both now available in the respective app stores. The web version of the app is also up to date. The update fixes some bugs in the fruit growth rate model but does not completely fix the voice recognition problem in the FGR model. It appears that the IOS voice recognition is working but not the Android voice recognition. There is still a problem with the irrigation model on NEWA which they are working on.

**Petal fall thinning sprays:** The majority of the Petal Fall thinning sprays were started this past Saturday or Sunday in inland sites. Petal fall thinning window for lake sites opened on Sunday May 22 and will be open until Tuesday May 24. A few very late-late sites in our region should be sprayed tomorrow Wednesday May 25 or Thursday May 26 at the latest (review entire petal fall thinning remarks by Dr. Terence Robinson (Cornell U) – Precision Crop Load Management in May 18, 2022 - <https://youtu.be/uijmoAT0shY>)

- At petal fall, all thinners have a moderate effect and are thus very safe (there is little risk of over-thinning)
- Honeycrisp fruitlets at several sites measured 8-9mm yesterday
- Gala fruitlets averaged 7-8mm
- Use the carbohydrate model to adjust timing and rate
  - Both a Web-based version and a mobile phone version (MaluSim.org) are available
  - Don't spray when carbohydrate deficits are -60 or lower
- The petal fall spray is an essential component of this 2022 thinning program.
  - In blocks with a **strong set**, a full dose of either NAA+Sevin or NAD+Sevin is needed and is expected to give good thinning
  - This year with temperatures in the mid 70's and mid 80's, Maxcel+Sevin will give good thinning on **Gala, Empire, NY-1 and Fuji**

Suggested Petal Fall Chemical Thinning (fruits 5-6mm)	
Honeycrisp	Gala
NAA 3oz/100 + Sevin 1pt/100	Maxcel 64oz/100 + Sevin 1pt/100

### Final Suggestions

- Use full rates
  - 7.5ppm (3oz) NAA + 1 pt/100 of Sevin on Honeycrisp, Gala and NY-1 (mature)
  - 5.0ppm (2oz) NAA + 1 pt/100 of Sevin on McIntosh
  - 7.5ppm (3oz) NAA with no Sevin for Cortland
  - 64 oz/100 Maxcel + 1 pt/100 of Sevin will give good thinning in 2022
  - Suggested rates are dilute TRV rates
- Calculate TRV for each orchard and then a concentration factor
  - $TRV/Volume\ of\ spray\ per\ acre = Concentration\ factor$
  - Example: TRV=200 and spray volume is 100 then concentration factor=2
- Multiply suggested rates by concentration factor to get rate/acre.
  - Example 3oz NAA X Conc. factor of 2=6oz NAA/100 gal X 5=30 oz/sprayer tank
- Do not use concentration factor adjustment for Sevin or surfactants.
- Nozzle the sprayer differently. For the petal fall spray nozzle 1/3 bottom and 2/3 top
- Surfactants like Regulaid, can increase the response of NAA.
  1. If there is no carbohydrate deficit include a surfactant
  2. If there is a carbohydrate deficit do not include a surfactant.

### Are you prepared/will you be ready for irrigation this season?

- With the warm weather we had during the petal fall sprays this past week, I would like to remind you about the importance of irrigation (especially in blocks located in light sites or some areas located in the West side of the city) for some Gala, NY-1, and Honeycrisp growers

- If you are not still ready for irrigation, please remember that any lack of rainfall coupled with warmer temperatures can affect fruit growth rate at this stage
- It can also affect return bloom in Honeycrisp and Fuji if a severe water stress occurs the first 5-6 weeks after full bloom
- You should focus irrigation on small fruited varieties like Gala, Empire, Macoun, and weak cultivars like NY-1 and Honeycrisp

**With young trees that have a crop, the unsupported terminal portion of the leader above the last wire should be de-fruited** for maximum shoot growth and good lignification during years 2, 3 and 4. The wrapping (twisting) of the leader around a plastic tie or vertical wire stabilizer works, supports the leader, and encourages new growth above where it is supported by a tree-clip at the trellis wire.

**For trees which had moderate or poor growth in the first year or were planted on a weak rootstock**, these trees should be de-fruited in year 2 (and in very few cases in year 3) because fruits will outcompete with overall tree and shoot leader growth for carbohydrates and water. Weak trees planted this year should not carry a crop.

**Growing and safely pushing a weak cultivar the rest of the 2022 growing season.** A young Honeycrisp tree is less forgiving than Gala. To grow a weak Honeycrisp tree you have to support, prune, leave horizontal shoots, and single the leader.

- Remove extra shoots at the terminal (always leave a stub of two-three fingers length, do not rub the buds below the ring) and divert the growing effort on the central leader.
- You can still remove any large lower limb that is out of balance with the rest of the texture of the canopy
- Prune out anything that is **too long, too thick, or too narrow** (remember the use of the 3 “Ts”)
- Always leave longer stubs to secure renewal (critical for Honeycrisp).
- In some cases, renewal pruning needs to be “accelerated” on Honeycrisp. Removing the largest bottom branch from this slow-growing tree will divert energy to the growing terminal. The same pruning techniques are applicable for NY-1, or other weak cultivars.
- First grow the tree then crop it!

**“Whole tree nutrition” (for nursing limbs and grafts) is critical for maximum growth of scion the first year after grafting.** There are several grafted projects all over our region that could benefit by implementing a targeted foliar program on scion growth or **“whole tree nutrition”**. As soon as the grafts are out 6-10 inches and supported to a plastic twine or similar, you should start spraying a leaf feed of some source (consider at least urea at 3 lbs/100 gallons). You can spray 20 to 30 gallons per acre every week from now until July 15. Do not push with N beyond July 15 to avoid any potential winter damage in the tips of the scion with any sudden drop of temperatures we may experience in November of 2022. Also, don’t forget to remove nursing foliage that is shading the graft at this time of the year, clean out specially the west side of the rows for maximum light penetration in the lower part of your trees.

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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