



Horticultural and Pest Management Notes,  
produced by Lake Ontario Fruit Program, CCE

From FAX: 585-798-5191 D. Breth & M. Miranda S. May 7, 2013

The weather forecast is high temps through Thursday in the mid-70's, but cooler closer to Lake Ontario, and low temperatures for the next several days in the low 50's. The showers are back in the forecast for Wednesday through Saturday. Inland sites will cool back down into the 60's over the weekend and 50's early next week. There is a chance of frost predicted for Monday and Tuesday mornings.

**Check your Delicious, Cameo, and Gala for king bloom and be prepared for the Promalin application to improve typiness.** Apply 1-2 pt./100 gallons, no more than 2 pt per acre, in 50-100 GPA. We have excellent spray conditions for this application. We are already past this application in inland sites, but lake sites should reach this timing soon.

**Mark full bloom dates on Macs to use in predicting harvest models.** This is happening now if you have good pollination conditions in inland sites, in a few days likely in lake sites.

**Fire Blight Alert...** A quick summary of all the models shows that inland sites will need 2 sprays this week to get through blossom blight infections - one with your scab fungicide today in preparation for the showers and, another a few days later. In sites closer to the lake, the lake continues to keep things cooler with bloom not starting in apples until Saturday. The Maryblyt models predict low risk in lake sites, still not reaching the 198 degree hours throughout the week, but depending on where you get your forecast, it could be warmer with 1 spray needed before the showers tomorrow. Fire blight cankers have been happily oozing with this warm weather! IN orchards with established cankers, include streptomycin for all varieties, but in orchards without fire blight established, you can just cover the susceptible varieties that have been blooming since May 5 or before.

**Apple scab:** In normal years we would be at about 50-60% ascospore maturity, peaking during bloom. But the dry weather has likely held back maturity but not enough to deny that the showers in the forecast could cause a doozy of a scab infection. **Get covered today using mancozeb if including strep! And since mildew strikes are showing up nicely now with spores, include Topguard, or Flint. You have very little fungicide out there with all the growth that occurred last week. And spray coverage will be critical to get to the base of the flowers for protection! So do not try to spray alternate row middles!**

**Streptomycin resistant areas?** Orchards that I believe need to be treated with a tank mix of strep and oxytet include orchards that have a consistent fight with fire blight historically, and orchards where resistant populations have been detected. Growers who had samples submitted last year and resistance was confirmed were notified of the presence of strep resistance. Oxytet does not kill the bacteria but stops them from multiplying; **oxytet must be applied before an infection.** Streptomycin and copper will kill the bacteria. Streptomycin can be applied within 24 hours of a wetting but is more effective if applied before, especially if spray conditions are better. So the tank mix should be applied before there is a blossom infection! FireLine vs. Mycoshield (1 lb/a) striving for 200 ppm application rates (8 oz./50 gallons or 16 oz./100 gallons/acre). Mycoshield still has the restriction of not using treated crops for feed; this restriction is not on the FireLine label.

**IN stone fruit in bloom to petal fall,** it is all about brown rot fungicide protection before the showers. Remember that European brown rot in cherries is not controlled using Bravo (chlorothalonil), so you will need to use another SI at this point where European brown rot has been documented. Oriental fruit moth is flying so in peaches, plums, and apricots, be ready at petal fall with an insecticide to prevent shoot infestation from the first flight.

**Blueberries:** Renew fungicide protection for mummyberry on blueberries before the showers using Captan (with current low disease pressure), or mix captan with Indar, Orbit, or Switch if Phomopsis canker has been an issue. Bumblebees will improve pollination and berry size in blueberries when they open blossoms.

**Strawberries:** Bud trusses are coming out of the crown and susceptible to clipper damage with the current warm conditions; some early varieties at first bloom. Insect issues are typically tarnished plant bug, spittlebug and strawberry clipper. Chlorpyrifos (Lorsban), bifenthrin (Brigade) or Danitol can be used to prevent bud clipping prebloom. You can wait until you see >one injured truss per foot of row when scouting. If tarnished plant bug nymphs are noted in 4 of 15 clusters, effective options include Brigade or Danitol, but also Assail or Dibrom are options. Thionex is still allowed for use on perennial strawberries through 2016 for control of spittlebug which would also control plant bug. Brigade, Danitol, Admire, or Assail are also effective. Read the label restrictions regarding bee toxicity. **Botrytis** fungicide protection on strawberries is best at first bloom, then 7-10 day intervals using Elevate, Captevate, iprodione (Rovral-1 spray per season), Pristine, Switch or Scala. Get your overhead irrigation set up for the frosts predicted early next week.

**Maximize Bee Effectiveness (from Mike Fargione message)** - The beautiful stretch of weather ahead should be favorable for pollination. Here are some considerations to maximize bee effectiveness:

- Bees should be moved at night, and once the hives have been placed on location, they should be left there until pollination is done. Moving bees in the daytime can result in a serious loss of foragers and damage to the colony. Contact beekeepers if you need to move the bees.
- Keep nearby flowering plants mowed to reduce competition for the bees' attention.
- New York apple growers have traditionally used about one colony per three acres. Growers with large blocks of tree fruits may wish to increase the number of hives to one per acre, especially in large high-density blocks. Up to two colonies per acre may be needed in large blocks of Red Delicious apples because their different flower structure reduces pollination success. Place colonies in groups of 4-6 to take advantage of good locations. In large orchards and fields, groups of 10-20 hives can be used to take advantage of prime locations.
- Pear nectar contains only about 15% sugar versus 40% for apples, dandelions, and yellow rocket. Move bees into the center of the pear block when they are at 50% bloom. It will then take some time for the bees to discover better sources farther away, and in that time, the pears may be adequately pollinated. You can also use more colonies per acre to increase the number of bees foraging within the orchard.
- Good locations for hives slope slightly to the south, are protected from the prevailing winds, are dry, and have as much exposure to sunlight as possible. Bee colonies should be in full sunlight to warm the hives rapidly in the morning and entice the workers out of the hives on chilly mornings. Entrances should face south to southeast whenever possible.
- Keep colonies 4-8 inches above the ground on pallets or cinder blocks. Hives with wet bottom boards will be cooler and have less foraging activity than dry colonies. A hive stand will also keep colonies above tall grass, which may shade or block the entrance.
- It is best to locate hives near pollinizer rows.
- Bee losses have been devastating to bee keepers and you need their bees to grow your crops. Be especially careful with pesticides and avoid spraying products during bloom that will hurt bees. Respect their requests regarding which pesticides you use in or near hives. Until we know more, consider delaying the use of neonicotinoids until after bloom.
- **Provide a source of clean water near the hives.** A wash tub filled with fresh water and straw works well. The straw gives the bees a place to land and drink without drowning. Contaminated water is another way bees are killed by pesticides. Standing water in wheel ruts or old tires near your fields are prime sources of contaminated water.

### **Horticultural Notes from Mario...**

**Will you be conducting chemical thinning at bloom this year?** This is the week to start considering the following chemical options for the bloom thinning window and get the products as needed to reduce the good bloom expected for this year: (1) ammonium thiosulfate ATS (2-2.5%), it is a foliar nitrogen fertilizer that, if used during bloom (defined as the stage when the 80% of the flowers are open in the north side of the trees), will cause significant thinning, (2) Lime Sulfur (2-2.5%) and Fish Oil (2%), or Damoil (2%), (3) Promalin (2pt/acre), (4) Maxcel (64-128oz/acre), and (5) NAA (4-8oz/acre).

Two options in 2013 for Precision Thinning of Gala and Honeycrisp at Bloom: (1) For Gala: apply a Bloom Spray (Maxcel 96oz/acre), and (2) For Honeycrisp: apply a Bloom Spray (Maxcel 48oz/acre).

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.