



Healthy Fruit, Issue 10, June 3, 2008

Current DD accumulations

Location	Base 43F	Base 50F	Base 33F*
Belchertown, UMass CSO observed (01/01/08 – 06/02/08)	712	394	1127 (99%)
Belchertown, UMass CSO SkyBit (01/01/08 – 06/02/08)	679	--	-- (99%)

** from April 16, green-tip date, for apple scab ascospore maturity (% mature spores). This will be the last report for apple scab ascospore maturity as the primary season is over (in Belchertown).*

Upcoming meetings/events

Date	Meeting/event	Location	Time	Information
June 17	Fruit Team Twilight Meeting	TBA	5:30 PM	Jon Clements 413-478-7219
June 18	Fruit Team Twilight Meeting	Shelburne Farm, Stow. MA	5:30 PM	Jon Clements 413-478-7219
June 19	Fruit Team Twilight Meeting	Sweet Berry Farm, Middleton, RI	5:30 PM	Jon Clements 413-478-7219 or Heather Faubert 401-874-2967
July 17	Summer Meeting of Massachusetts Fruit Growers' Assoc.	UMass Cold Spring Orchard, Belchertown, MA	TBA	Jon Clements 413-478-7219

Two pesticide re-certification credits offered at each Fruit Team Twilight meeting.

The way I see it: observations from Belchertown

Apple fruit size is approaching 15 mm on king fruit. Fruit are thinning nicely, but as usual, there is some variability. Although the traditional thinning window is still (barely) open, if you applied thinners in the past week, be patient and give them time to work -- conditions for getting results from chemical thinners have been good.

The primary apple scab season is over -- continue to monitor for infection for a couple weeks, and if you are clean, congratulations. As mentioned in last week's Healthy Fruit, it has been a relatively 'easy' year. There was one final infection period resulting from rain over the weekend, so now we are up to six infection periods for the primary season.

The fire blight models have all been in agreement about high risk whenever the weather has warmed in the past week. Any open apple bloom (picture on left, 1st leaf orchards, cider varieties, high elevation orchards) should be protected with streptomycin if we get rain or heavy dew.



Plum curculio should be active for another couple weeks, in fact, the peak developing anytime now. Insecticide coverage using Guthion, Imidan, Avaunt, Actara, Assail, Calypso, Clutch, take your pick, is a must now. Potato leaf hopper has been observed in the Hudson Valley so watch out for these anytime now. Cover sprays in young orchards that include Provado -- or in fact any of the insecticides listed for curculio above, will keep potato leafhopper out.

Trunks of apple trees should be treated for dogwood borer during the month of June. Lorsban (4E or 75 WG) are labeled for post-bloom, trunk-only sprays in apples. Don't overlook these important pests in dwarf trees. See following article.

Pears are almost 20 mm in size. May still be an open window for applying thinning sprays, particularly Maxcel, but would have to be done this week. Otherwise, maintain insecticide coverage for plum curculio, cording moth, etc.

Peaches are big enough to start hand thinning or detail pruning to remove some of the crop. Early thinning will result in bigger fruit. Fruit on smaller, weak wood should be removed by pruning the whole shoot. Maintain insecticide coverage for the plant bug complex, and if bacterial spot is a problem, Mycoshield should be applied as cover sprays every 7 days during wet weather.

Cherries are depressing, as we have at most 10% of a crop after the May 1 freeze. Balaton seems to have pulled through OK, but Jubileum, another tart-sweet cherry that blooms and is harvested earlier, are blank. Regina, the latest blooming variety (was not in bloom during the freeze) have some fruit. Otherwise, controlling cherry leaf spot and protecting the fruit from curculio injury would be on my mind. We do have a group of NY #'d selections on the hill on G.6 rootstock which have fared much better. Some fruit are already starting to color, in fact they have already started to crack (right), with anticipated harvest in about 2 weeks.



J. Clements.

Dogwood borer continues to plague

During a grower visit last week while investigating a Honeycrisp orchard with variable and mostly sub-optimum growth, the usual suspect cropped up -- Dogwood borer.



Clearly, many of these 6-7 year old trees had borer infestation(s) to varying degree over time and in part have contributed to poor tree vigor. Dwarf apple trees, particularly Honeycrisp and Macoun, need to have the above-ground portion of the rootstock inspected carefully for signs of borers. Look for rough wood, with brown frass, in the vicinity of burr knots. Dig around with a pen knife, and you may find borer(s). (See picture.) Trees with wire mouse guards and accumulated debris/weeds growing up in the guards are most attractive to borers. (I am beginning to wonder if mouse guards have done more harm than good in some situations?) Treatment consists of a

coarse trunk spray during the month of June with Lorsban (4E or 75 WG). Repeat every year or two. Unlike for peach tree borer(s), there is no Mating Disruption option for dogwood borer.

J. Clements

MD for PTB, LPTB

Acronyms got you abuzz?

MD -- Mating Disruption

PTB -- Peach Tree Borer, found at the trunk-soil interface (most common)

LPTB -- Lesser Peach Tree Borer (found on the scaffold limbs, including peaches and cherries)

Talking points from Art Agnello in a recent Scaffolds Newsletter

(<http://www.nysaes.cornell.edu/ent/scaffolds/>):

- In NY, there are two species of sesiid (clearwing) moths that attack peaches — the peachtree borer (PTB), *Synanthedon exitiosa*, and the lesser peachtree borer (LPTB), *S. pictipes*. The adult borers are striking clear-winged moths with yellow and steel-blue body markings.
- The PTB enters the tree near soil level and does not require the presence of wounds or breaks in the bark for entry, but the LPTB nearly always enters the tree at a pruning scar, canker, mechanical injury, or winter-injured area. The LPTB additionally attacks cherries, causing the same type of injury in the upper trunk and scaffold branches of these trees.
- Injury is caused by larval feeding on the cambium and inner bark of the trunk close to the soil level (PTB) or on the upper trunk and lower scaffold branches (LPTB).
- Control is difficult, owing to the concealed habit of the larvae, growers have traditionally relied on one or more coarse insecticide sprays (e.g., Asana, Lorsban, Proaxis, Thionex, Warrior) of the trunks and lower scaffold branches to deter egg laying and kill newly established larvae. Because this is a labor-intensive measure that often fails to completely control these pests, many growers choose not to elect treatment, or else do an incomplete job, with the intention of getting what they can out of a planting until infestations combine with other peach production factors to warrant tree removal. However, there is a good alternative in the form of pheromone mating disruption (MD) tools for the control of these perennial pests.
- At the end of May each year, Isomate-LPTB ties (CBC) were placed in the test blocks at a rate of approximately 200/acre (1/tree). It should be noted that this blend is formulated to be appropriate at this rate for disruption of both borers in situations where PTB is the predominant species or at least comparable in occurrence to LPTB. Although we assumed that LPTB was the main species
- at these sites, we chose to be conservative and not use the lower (100 ties/acre) rate recommended
- for such situations.
- The pheromone dispensers completely suppressed trap catches of both PTB and LPTB at both sites for both seasons, compared with relatively heavy flights noted in the non-disrupted comparison blocks, showing that this pheromone treatment was highly successful in disrupting the chemical communication of males and females of these two species.
- We concluded that these trials provided sufficient evidence that mating disruption alone is able to provide adequate protection from borer infestations in commercial orchards, giving growers an effective non-chemical alternative to trunk sprays for managing this pest complex in their stone fruit plantings.

For the complete article see: <http://www.nysaes.cornell.edu/ent/scaffolds/>

J. Clements

Horticultural exercises

- It continues to remain dry in some spots. Trees need irrigation if we receive less than 1 inch of rain per week.
- A grower brought to my attention the fact he lost a newly planted tree or two to breakage with all the wind we have had lately. Just-planted trees should be supported ASAP after planting to prevent this, and it will help establish the roots. Also, research done some time ago showed that supported trees will produce more shoot growth and hence more fruit in the early years coming up. However you choose to do it, get those trees stabilized!
- Hand thinning of peaches can start anytime, the earlier the better for increased fruit size at harvest. Pruning of weak, small shoots with fruit on them can also effectively reduce crop load. This, from Chris Doll in the Illinois Fruit and Vegetable News, Vol. 14, No. 6, May 28, 2008, <http://www.ipm.uiuc.edu/ifvn/volume14/frveg1406.html>

“The question of spacing peaches continues to be asked, and experience is a great teacher but new students keep showing up. So, the basic suggestion is to have about 35 leaves per fruit, and this generally figures out to a spacing of 8 to 10 inches. A good factor to remember is that large peaches SELL and that there are 112 peaches per bushel when they are 2.7-3.0 inches in diameter in contrast to 185 peaches per bushel if the size is 2.25-2.5 inches.”

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