



Healthy Fruit

Volume 10, 2002

Prepared by the University of Massachusetts Fruit Team

Issue 7 - May 14, 2002

Current DD Accumulations

Location	32	43	50
Belchertown UMass Cold Spring Orchard (CSO) (01/01/02 – 05/13/02)	-	435	221
(04/04/02 – 05/13/02, 04/04 Green Tip date)	744	-	-

Current Bud Stages

Location	McIntosh Apple	Gala Apple	Pear	Peach	Sweet Cherry	Plum
Belchertown UMass CSO (05/13/02)	Late petal fall – Fruit set	Late bloom – Petal fall	Fruit set	Fruit set – late shucks on, early shucks off	Fruit set	Fruit set

Upcoming Meetings/Events

Date	Meeting/Event	Location	Time	Information
May 15	Fruit Team Twilight Meeting	West Parish Orchard 1780 Granville Rd. Westfield, MA 01085	5:30 PM	Jon Clements 413-478-7219
May 16	Fruit Team Twilight Meeting	Bernie Smith 359 Sawmill Rd. N. Scituate, RI 02857	5:30 PM	Heather Faubert 401-874-2750 <i>or</i> Jon Clements 413-478-7219

Bored Yet?

If not, you likely will be soon. Emergence of adult dogwood borers and greater peachtree borers will be happening soon. These pests seem to be increasingly problematic on apples and peaches. Petal-fall is a good time to apply a trunk-directed Lorsban spray. There has been some confusion about timing and the Lorsban label, however, it is now clear that a trunk spray -- that is, trunk only, no limbs, fruit or foliage -- of Lorsban 4E on apples and peaches is allowed post-bloom for control of trunk borers. Growers with young peach and apple orchards on dwarf rootstocks should make this spray SOON. It will give season-long protection from trunk borers. Borers will significantly reduce tree vigor and yield unless kept out of young trees. Please take this threat seriously and do something about it!

Apogee Use for Growth Control on Apples

Unfavorable weather during the past week may have caused a delay in the application of Apogee. In our opinion it is not too late to make the initial Apogee application. Effective growth control can still be achieved. We recommend starting out with the

4 oz/100 gal based upon dilute tree row volume (TRV) dilute calculations. In the spray tank include a surfactant at the recommend rate and either the same weight of ammonium sulfate or 2 pints of a water conditioner such as Quest or Choice. A follow up spray with a 2 to 3 oz/100 gal rate 2 weeks later and a third about 5 to 6 weeks after the first application is recommended. Do not use Apogee on Empire as it may cause russetting and/or cracking of fruit on this cultivar.

Apogee can increase fruit set, especially when used at rates above 6 oz/100 gal, based upon dilute TRV calculations. In this circumstance more aggressive thinning will be necessary. We do not suggest using higher rates of a thinner to accomplish this but rather including another thinner application (such as petal fall spray of carbaryl) or adding an additional thinner (such as including NAA with carbaryl) at the traditional 8 to 10 mm timing. However, at the initial rate of Apogee now recommended (4 oz/100 gal) increased fruit set will be minimized and a less aggressive thinning approach may be in order.

Concern has been expressed over the possibility of reduced return bloom following Apogee use. In the years that we have used Apogee in Massachusetts, the only reduction in return

bloom was associated with increased fruit set where thinning was not aggressive enough to adequately reduce crop load. Reports from other areas in New England, as well as from Virginia, West Virginia, Pennsylvania, and North Carolina indicate that return bloom is unaffected by Apogee when used at the 6 oz/100 gal rates. Therefore, we feel that growers in New England can use Apogee at the initial rate suggested here, with the confidence that there will be good growth control with no adverse effect on return bloom.

Plum Curculio

A second wave of immigration into orchards occurred last Monday through Wednesday during the warm, not-too-windy weather; this wave was about equal in size to the one that occurred during the initial warm spell in April. The result is that there are lots of curculio lurking in the ground cover, predominantly in border rows, waiting for the fruit to reach about 8 mm in size, and for warm (60's and higher, probably mid-60's and higher), humid weather, and especially for falling barometric pressure. Effective control materials are Guthion/Azinphos, Imidan, Actara, Avaunt, and the pyrethroids. Surround and/or Aza-Direct may provide acceptable control in organic or similar low-spray situations. Bear in mind that Actara is quite toxic to bees that might be foraging in remaining blossoms or flowering understory plants.

European Apple Sawfly

Flight has increased a good deal since last week, with one trap catching over 100 sawflies and several trap catches greater than 30. The lateness of sawfly immigration relative to blossom is good news, since it gives time to apply an effective insecticide before the eggs hatch and larvae begin to tunnel into fruit. Guthion/Azinphos, Imidan, and Actara, all have good activity on sawfly also. Since Surround is essentially a repellent, it should go on before egg-laying occurs.

Mites

European red mites are noticeable on older fruit cluster leaves in some orchards where oil was not applied until mid- to late pink. Monitor closely at this time of year for mites, especially where you might be doubtful about oil timing or coverage. Two-spotted mite adults often begin appearing in orchards at this time of year; the overwintering adults are generally orange, and can be distinguished from predator mites by the "bumpy" appearance of the body compared to a very smooth appearance for most predator mites; in addition, zetzellia mali mites are apt to be lemon-yellow as opposed to orange. Miticide options are Apollo, Savey (do not use either material if either was used last year), Pyramite, Acramite, Agri-Mek, and Kelthane. Where mite populations are fairly low, some growers have also had success with mixing a full rate of Vendex with a low rate of oil (1 qt per 100 gallons), but this approach should be used with caution around thinners, especially on Delicious-type varieties.

Leafminers

Mines have not yet appeared on fruit cluster leaves; it's probably too early to be seeing them yet, but watch for them in the next week or two. If you're planning to use Provado or SpinTor in response to mine counts, it is imperative to find the mines before they become mid-size sap-feeders.

Peaches

Peaches should also be covered for curculio at shuck fall. In recent years, we have tried using a low rate of pyrethroid (1/3 of the label rate) combined with a full rate of organophosphate for control of curculio and peach plant bugs; we have no data on the effectiveness of this approach but it seems to have worked reasonably well.

Whiteapple Leafhoppers

WAL are a little bit ahead of tree phenology this year; early-instar nymphs have been showing up during bloom rather than slightly after petal fall. The Sevin thinning sprays should still take care of these.

Green Pug Moth

Caterpillars were much in evidence in a few orchards last week, chewing on blossom clusters. The damage was not widespread or substantial and they will be taken care of by the petal fall insecticide.

Primary and Secondary Scab Seasons Overlapping

The ascospore degree day maturity model is predicting 95% spore maturity at the Cold Spring Orchard (HRC) in Belchertown, MA on Tuesday May 14. All orchards in the Pioneer Valley and points East are now in the final phase of primary scab season with hill towns and Berkshire County not far behind. In case you haven't checked it out yet, there is a useful resource, provided by Jon Clements, on the UMASS Fruit Advisor webpage in the Tree Fruit section under "HRC weather" (<http://www.umass.edu/fruitadvisor>). Data from a Spectrum weather station is posted regularly and includes temperature, wet hours, degree days (base 32), % spore maturity, and degree of infection according to 3 different models (Mills, Washington St., and Cornell). According to this data, using the Mills model, the Cold Spring Orchard had a light degree of infection on 15 April, light on 29 April, medium on 30 April, light on 3 May, medium on 13 May and heavy on 14 May. According to the Cornell model those were all classified as infected.

We have been lucky so far with early infection periods being "light", but now with a heavy degree of infection possible, lots of mature ascospores available, plenty of new tissue exposed, and the possibility of little fungicide residue remaining after heavy rains, the apple trees are very vulnerable. It is important to keep the leaves protected at least 10 days after primary scab season is over, and it is not over yet.

This year we have the added problems of secondary scab being generated now from earlier infection periods at the same time as a massive primary infection and the confounding difficulty of possible frost damage in some orchards.