



Healthy Fruit

Volume 13, 2005

Prepared by the University of Massachusetts Fruit Team

Issue 6, May 10, 2005

Current DD Accumulations

Location	Base 32F	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/05 – 05/09/05)	--	338	152
Belchertown, SkyBit E-Weather (01/01/05 – 05/09/05)	--	299	--
Belchertown, UMass CSO observed (04/15/05 – 05/09/05)	465 (53*)	--	--
Belchertown, SkyBit E-Weather (04/15/05 – 05/09/05)	(13*)	--	--

• % mature spores

Current Bud Stages

Location	McIntosh apple	Honeycrisp apple	Pear	Redhaven peach	Regina sweet cherry
Belchertown UMass CSO (05/09/05)					
	king bloom	king bloom	bloom	bloom	bloom

Current bud stages also available on UMass Fruit Advisor, <http://www.umass.edu/fruitadvisor/>

Upcoming Meetings/Events

Date	Meeting/Event	Location	Time	Information
May 12	Fruit Team Twilight Meeting	Tougas Family Farm, Northboro, MA	5:30 PM	Jon Clements 413-478-7219

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The way I see it

It took a while to get here, but king bloom is evident on McIntosh while I write this, and I expect full bloom by the end of the week. That is a good thing as the weather forecast is good and no frost in sight! (I love the way a TV meteorologist recently described spring forecasting as ‘low confidence.’ But this forecast appears to be solid.) Bee hives should be in the orchard, and it’s not too early to be thinking about a petal-fall spray for thinning and insect control. The upcoming dry period seems unfavorable for a scab infection period. Be sure to take some time out and enjoy this magical time of the year in our orchards. J. Clements

Entomology

Although bloom is a relatively quiet time because there are no immediate insect concerns, a few items have caught my attention. First, the over-wintering generation of **leafminers** (spotted tentiform and apple blotch) has hatched, as adults have been present in the orchard and in traps. Growers with a history of leafminer problems ought to scout for fresh mines later in the month (1-2 weeks after petal fall). If treatment is warranted, Provado, Assail, and Calypso are good choices. Make sure bees are removed from the orchard. The diagnosis and treatment of leafminer is not easy until it is too late. My best advice is to treat early if you have a history of problems at harvest (i.e. many mines).

Second, my sources inform me there was a significant migration of **curculio** into the orchard during that warm third week in April. If you remember Ron Prokopy’s advice, a petal fall spray is good insurance against injury caused by resident curculio. Sevin, when used as a petal-fall thinner on the whole orchard, has some activity against curculio and is recommended. By the last week in May (or before), non-resident curculio become a concern and will migrate into the orchard during warm humid weather and when fruit size reaches 7-8 mm. Significant fruit damage is possible then -- be prepared. (See “When the Curculios Come Marching In

Finally, remember to consult **Orchard Radar** -- <http://pronewengland.org/Content/PROInfoDecisionModels.htm> -- there is much more entomology information and pest forecasts for Belchertown, Waltham, and Wareham (and coming soon, South Deerfield) there. J. Clements

When the curculios come marching in

Cold nights and cool days slowed Plum Curculio (PC) immigration to almost nothing from April 22 to May 9 in Belchertown, MA. On April 20, panel traps (14) and pyramid traps (29) were placed between apple blocks and woods at the UMASS Cold Spring Research and Education Center. Traps were baited with host plant attractants and PC pheromone. There was a spike of high temperature on April 20 and 21. On April 21, 31 (total) curculios were caught, 2/3 of them in pyramid traps. This indicated that 2/3 of the curculios were crawling (and not flying). After that time, captures dwindled to zero or 1 per day (total). On May 9 the 2nd wave of immigration started. Seven PC were caught on panel traps, indicating that PC are now flying. We expect more today with the continued warm weather.

The work of Ron Prokopy and Jaime Piñero showed that up to petal fall, the timing of immigration is strongly linked to air temperature. This has been a delayed immigration year so far, but with continued warmth, the weevils will catch up. Last year, Ron wrote that although it is tempting to spray at Pink for curculio, the best strategy is to wait until Petal-fall and with a Sevin XLR spray for thinning and a subsequent full-block spray of Guthion or Imidan, a grower can take care of the majority of the year’s curculio. Later sprays could be limited to perimeter row sprays with sprays into all sides of blocks facing woods, hedgerows or unsprayed areas. This

technique may be risky in blocks that have unusually heavy PC pressure, or blocks that have dwarf trees (PC penetrate these blocks more easily: they are not arrested as much by the trees in the 2 rows next to the woods or hedgerows). Growers using this technique must nail the curculios at or just after petal fall and must apply those later perimeter sprays before coverage is removed by rain. It is also a good idea to scout for fresh egg-laying scars in the perimeter row and inside the block. This strategy proved successful with Guthion and Imidan over several years. Recent data suggests it can be successful with Avaunt. Assail has not been tested much in this way, to the best of our knowledge. Please let us know if you try it.

Ron Prokopy also noted that the best way to judge when to apply the first curculio spray is to check the size of the fruitlets. When they reach 6 mm, it is time to spray. A. Tuttle and E. Bigurra

Horticulture

Right after bloom and into petal fall there are a few things to keep in mind. First, **Apogee** should be applied to apples when new shoot growth is 1 to 3 inches long. That can happen at petal fall or shortly thereafter. Prolonging Apogee application can result in sub-optimal growth control. For details on Apogee application, see Fact Sheet F-127R – Apogee, a New Growth Retardant for Apples (<http://www.umass.edu/fruitadvisor/factsheets/factsheets.html>).

Second, post-bloom sprays of **calcium nitrate** (5 lbs/acre) will enhance fruit growth and leaf health during this critical period of fruit set and growth. Use through the third or fourth cover spray then switch to calcium chloride or some other formulated calcium spray.

Finally, a petal-fall spray of **carbaryl** is a good, effective, and safe start to the fruit thinning process. If using Sevin XLR, 1–2 pints/100 gallons (dilute) is the recommended rate – use the lower rate for easy to thin varieties, the higher rate for more difficult to thin apples.

Diseases

Seems like every recent weekend has been cause for some major precipitation. Right now, it looks like this coming weekend is no exception. That should mean that it will be a major **apple scab** infection period. Enjoy the nice weather, but be ready for the weekend scab infection. (Also see: <http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ScabPotentialChart.htm>)

Petal fall and shuck-split are still in the first part of the **brown rot** infection cycle on peaches. A number of fungicides can be used at this time. Relatively new ones include Pristine, Echo and Elevate, as well as older materials such as Indar, Bravo, Captan and Sulfur. The key point is that with wet weather this weekend, the peaches may need some fungicide for brown rot.

So far, the models are telling us that **fire blight** should not be an issue this year. Even in those orchards with active blight last season, pressure this week will be moderate at worst. In other situations, the risk of blight is very low. We've had very cool nights, which drives down the population of fire blight bacteria. With bloom, trees become susceptible to fire blight. However, with bacterial populations low, there's not much if any inoculum.

Orchards that did have some fire blight last year should consider a bloom application of streptomycin. In others, the risk of infection doesn't require streptomycin.

Apple scab infection period(s) at UMass Cold Spring Orchard, Belchertown

