



# Healthy Fruit

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Prepared by the University of Massachusetts Fruit Program

## Healthy Fruit, Issue 9, May 30, 2006

<http://www.umass.edu/fruitadvisor/>

### Current DD accumulations

	Base 32F	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/06 – 05/29/06)		682	342
Belchertown, UMass CSO SkyBit (01/01/06 – 05/29/06)		675	
Belchertown, UMass CSO observed (04/10/06 [GT] – 05/29/06)	1101 [99]*		

\*[99] = % mature apple scab spores; primary spore release done

### Upcoming meetings/events

Date	Meeting/ event	Location	Time	Information
June 6	Fruit Team Twilight Meeting	Outlook Farm 136 Main Road, Westhampton, MA	5:30 PM	Jon Clements 413-478-7219
June 7	Fruit Team Twilight Meeting	Sunny Crest Orchards 24 Hawkins Lane, Sterling, MA	5:30 PM	Jon Clements 413-478-7219
June 8	Fruit Team Twilight Meeting	Young Family Farm 242 West Main Road (Route 77) Little Compton, RI	5:30 PM	Heather Faubert 413-478-7219

### Pursuing the oblique-banded leafroller -- J Clements

At the UMass Cold Spring Orchard, we already appear to have a healthy population of oblique-banded leafrollerers (OBLR) in certain blocks. They appear to be particularly numerous in McIntosh. Now, OBLR is a fairly new pest for us, and I have been trying to get a handle on it's life history and control options. Indeed, last year the they caused quite a bit of injury on harvested fruit -- obviously we want to prevent that this year.

First, OBLR over-winter as a larvae in a hibernaculum. They emerge as a larvae (around bloom?) and continue to grow and feed after petal-fall/fruit set until they pupate -- usually in late May or early June. You will see the classic 'rolled' leaves (spurs and terminals) and feeding injury (foliage and fruit) of OBLR during this time. Fruit injury can be there, but

infected fruit often fall off. Otherwise, they will have large feeding scars/holes. Fruit feeding from the first generation is not as severe (or persistent to harvest) as the second generation (described below). Broad-spectrum insecticides such as Imidan (or others, Guthion, Ambush, Pounce, etc.) used at this time (petal fall or later) will kill OBLR larvae assuming they are not resistant and the pesticide reaches them. (Remember, they are 'rolled up' in foliage, except when actively feeding.) Another option has been to use the more systemic SpinTor, Intrepid, Entrust, etc., but they really needed to go on right at bloom/early petal fall for maximum effectiveness.

Second, assuming some over-wintering OBLR larvae make it through petal fall insecticide sprays and pupate, the first summer generation adults will hatch (first hatch at about 600 DD's base 43) after 10-12 days as pupae and reach peak hatch about mid-late June (1,150 DD's). Peak egg laying by adults occurs shortly thereafter, and this next-hatched generation of larvae can do significant damage to fruit, particularly if allowed to pupate and hatch into second generation adults (see below.). Hence, these larvae are often a target of a summer spray. Again, Spintor, Intrepid, Entrust are effective insecticides at this time. There is a degree-day model based on first adult trap catch that helps you time this summer spray. It is approximately 400-450 DD's (base 43) after 1st sustained adult moth captures from the over-wintering generation.

Third and finally, there is another adult moth generation that hatches from the summer generation of larvae and these lay eggs (late August-September) that become the over-wintering larvae. These too can be very damaging to fruit and treatment is warranted again if the population is high at this time, although it is often approaching harvest, and pre-harvest intervals become an issue. That is why control focuses on the earlier (summer) generation of larvae.

So, OBLR has a fairly complicated life cycle with two complete generations per year. Watching for this pest is becoming more important as it appears to be spreading and *may* be demonstrating some resistance to our more common pesticides.

### ***Chemical thinning -- there is still time -- D Greene***

The window of opportunity for chemically thinning apples using the traditional thinners is still open, but the window is closing fast. Fruit size range between 12 to 15 mm at the UMass Cold Spring Orchard in Belchertown, which is generally considered a size when fruit become more difficult to thin.. As long as warm weather is forecast I suspect that you may be able to thin to the end of the week. As fruit size in this size range it will probably take more aggressive thing to cause sufficient thinning. I have had success at this fruit size range using benzyladenine (MaxCel) if the temperature reaches into the 80's for 2 to 3 days. Fruit are also increasing to the size when application of higher rates of NAA or application of NAA when hot weather follows can adversely influence fruit size. This is not a given, but the possibility does exist. Use NAA judiciously. At this stage in the thinning period all applications of NAA and MaxCel should be accompanied by carbaryl.

### ***Healthy Fruit Disease Elements -- D Cooley***

**Primary done, secondary started.** The best news for this week is that we are done with primary scab in southern New England. So, what does that mean?

It means that it's time to look in those unsprayed or lightly sprayed corners of the orchard, maybe even in the tops of trees depending on how energetic one feels, to see if the infection periods we've had have begun to produce infections and spores. The early infections from April 24 and from May 2 should be easily visible, if there are any in your orchard. The results of the heaviest infection period of the season, May 12 through 15, should

also be showing now.

As of Friday at Cold Spring Orchard, there were few lesions on check trees from the early infection periods, indicating that they were light, as the models suggested. There were only a few early signs of infections from the mid-May deluge, but I expect that by today they will be much more obvious. With a little looking, it should be clear whether or not you were successful in getting enough fungicide out during the monsoon rains. In particular, look at terminal leaves.

If there is scab, then the best approach is the back-to-back sprays of an SI (Nova, Procure, or Rubigan) PLUS a full rate of captan (6 lbs. 50W per acre) applied 8 to 10 days apart. Where SI resistance may be a problem, then captan can be tried with a strobilurine (Flint or Sovran). The strobilurines will not “burn out” scab in the way that other materials, most recently the SI’s, can, but it will do a good job protecting fruit from infection.

Another option is Syllit. The reason Syllit is no longer recommended in NY and other areas is that resistance is too prevalent. If an orchard has a long history of Syllit (dodine) use, then using it is risky. However, repeated applications, 5 to 7 days apart, of Syllit 65W at 12 oz per 100 gal (2 lb per acre) can be used to inhibit scab. To add insurance and increase the efficacy of this treatment, add 6 lbs/A captan (50W).

Note that if captan is being used now, avoid using oil or Agri-Mek. Instead, 3 lbs./A mancozeb can be used, though it won’t be as effective.

For organic producers, the only real eradication option is liquid lime sulfur, applied at 1/2 gal/100 gal. This application will have to be repeated at 5- to 7-day intervals until the lesions stop producing spores (hopefully). Lime sulfur can be very effective, but in addition to being an obnoxious material to handle, it can cause real russet problems.

**Blight weather.** The past few warm and humid days have been the sort of weather that grows fire blight bacteria. Fortunately, most cultivars have passed through bloom, meaning blossom blight is out of the picture.

However, where there still are blossoms, either the end of a few blooms on Gala, or late bloom on interesting cultivars like some English cider varieties, watch out. The so-called rat-tail bloom on pears can also be dangerous in terms of fire blight. Where **blossoms are present** (or were present Sun. and Mon.), and the **cultivar is susceptible**, and particularly **where there was blight in or near the block last year**, fire blight infection **risk is moderate to high**, and will remain so until the blossoms are gone. A streptomycin spray for those trees would be a reasonable precaution.

**Brown rot.** With some time from bloom, and with good size fruit many weeks out, peaches are relatively resistant to brown rot infections right now. However, check to see whether blossoms were blighted over the past few weeks. Brown rot blossom blight can, in bad cases, get into twigs. More likely, now only shriveled blossoms will be seen, and with a close look, maybe the typical fuzzy growth of the brown rot fungus.

The picture below shows a blighted blossom, with the white/gray spores around the calyx. The infection has spread into the twig, and the drop of ooze and darkened bark are the results.



Picture from Jay Pscheidt, Oregon State University.

If thinning, watch out for this and get rid of it. In the meantime, maintain reasonable fungicide protection, consulting the exhaustive (for me at least) list of fungicides from the April 25 Healthy Fruit for fungicides that are best to use right now. Captan or sulfur are probably the least expensive and best options for now, saving the more expensive materials for later as fruit start to ripen.

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