



# Healthy Fruit

Volume 14, 2006

Prepared by the University of Massachusetts Fruit Program

## Healthy Fruit, Issue 13, June 27, 2006

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

### Current DD accumulations

Location	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/06 – 06/26/06)	1125	639
Belchertown, UMass CSO SkyBit (01/01/06 – 06/26/06)	1325	

### Upcoming meetings/events

Date	Meeting/ event	Location	Time	Information
July 14	Summer Meeting - Mass. Fruit Growers' Assoc.	UMass Cold Spring Orchard 391 Sabin Street Belchertown, MA	TBA	Duane Greene 413-545-5219

### The way I see it -- J Clements

Scab lesions are appearing here and there which is to be expected given the weather. Read Dan Cooley's article on summer disease control -- if the rain keeps up, fungicide applications will be ongoing, and for those who have scab (scout now!), a full rate of Captan (every 1.5 to 2 inches of rain) should be in the mix. It is going to be an expensive spray season. Now is the time to be applying trunk sprays for borer control in both peaches and apples, see included article. June drop is pretty much over, and the apple crop on a block-by-block basis is about as diverse as you can get. The only exception is McIntosh, which are universally good. Cortlands and Macouns are spotty depending on orchard. Don't forget to mark Friday, July 14 on your calendar for the summer meeting of the Massachusetts Fruit Growers' Association at the UMass Cold Spring Orchard in Belchertown. The meeting will run from approximately 10 AM to 3 PM, and feature an orchard tour, BBQ lunch, and an afternoon speaking program. Two pesticide re-certification credits will likely be offered.

### Borers and more borers -- J Clements

Typically we start to notice significant borer activity in both apples (dogwood borer) and peaches (greater and lesser peachtree borers) about now. Hence, it is also a good time for a trunk spray of Lorsban 4E, 50W, or 75G on apples and a good time to hang pheromone ties (100 per acre, for mating disruption) in peaches. Trunk sprays of Lorsban 4E or 75G can also be used on peaches, do not hit the fruit. Keeping the trunk area clean and weed-free are also good strategies for minimizing borer damage.

## **Healthy Fruit disease elements -- D Cooley**

**No rest for the sprayer this year.** The bridge between the end of scab and the beginning of summer disease season is pretty short this year. In some orchards, with scab, there just isn't any. Blame the rain.

We use flyspeck management to guide the summer disease spray program because if flyspeck is controlled, its partner sooty blotch is taken out as well. The biology of the flyspeck fungus is such that right now, spores are moving from plants around orchards onto fruit. So, you need to spray. That's the short story.

The longer version is that there is a model that predicts that when 270 hours of wetting have accumulated after petal fall, flyspeck and sooty blotch infections begin. In part this works because the primary flyspeck infections happen in plants along orchard borders. Primary infections don't really matter to fruit, because the fruit haven't really set until the end of primary flyspeck season, and at that time scab sprays are still protecting them. It then takes some time for the infections on the wild trees and shrubs along the border to develop and form conidia. These can then move into the orchard as the next wave of inoculum. A reasonable estimate of how long it takes to do this is the 270 hrs. of accumulated wetness after petal fall.

After that, it takes another 270 hrs. of accumulated wetting before new infections on fruit become visible, as specks. If a grower doesn't apply fungicides in summer, then after 540 accumulated wet hours from petal fall (270 + 270), flyspeck will start to show up.

In most years, that means that after the last scab spray goes on, there are 3 or 4 weeks during the first 270 hrs. when no new fungicide sprays are needed, often carrying into mid-July or longer. As I'm sure most people know all too well, this year isn't most years. Instead, we passed the 270 wetting hrs from petal fall early last week (June 20) at UMass CSO, and in many orchards scab eradication sprays are going on now. There's been no break in the need to apply fungicides this year.

To make matters a little worse, it looks as though we had better not depend on fungicides for post-infection flyspeck activity. For a few years, results from Dave Rosenberger's fungicide trials at Cornell's Hudson Valley Lab indicated that Topsin-M, Flint and Sovran each gave about 100 hrs. of post-infection activity against flyspeck. So, a grower could wait 270 hrs. accumulated wetting from petal fall, then wait another 100 hrs. of accumulated wetting, apply either Topsin\_M, Sovran or Flint, and be fine. However, in 2005, Rosenberger did a test that indicated that these fungicides arrested flyspeck infections, but do not eradicate them. In other words, they appeared to stun the flyspeck fungus but didn't kill it. So, after a while, fungicide effects wear off, flyspeck starts growing again and the speck symptoms appear on the fruit surface. This may happen in the orchard, and sometimes even in storage.

That means that the safest strategy for summer disease management appears to be using fungicides as protectants. The two key factors to consider are the length of protectant activity, and the amount of rain the protectant will resist. Topsin-M (70WP at 12 oz per acre plus captan), or Flint (50WG at 2 oz. per acre), or Sovran (50WG at 3 oz. per acre) are still the best protectants, offering 21 days activity up to 2 in. of rain. Pristine, a new fungicide available this year, appears to do at least as well as these materials (apply at 15 oz. per acre). Captan alone (50WP at 3 to 4.5 lb per acre) offers 14 days up to 2 in. of rain. There's a 4 lb. per acre seasonal limit on Topsin-M, but that shouldn't be a problem if applications are limited to summer. Unless it keeps raining like it has.

Applying Topsin-M, Sovran, Flint or Pristine after an infection has started, but before symptoms are visible (that is, during the second 270 hr. period) will temporarily stop the growth of the fungus. We don't really know how long this effect holds. Flyspeck may suddenly pop up at harvest if the arresting effect of these fungicides disappears during late August, and wet weather in September stimulates the flyspeck and sooty blotch fungi to grow. That's why it's safest to try to protect against infection.

Good coverage on fruit is essential for good management of flyspeck and sooty blotch. In general, the more gallons per acre applied, the better the coverage.

And don't forget summer pruning. It's labor intensive, but on big, thick trees can offer major benefits in terms of summer disease management. Fungicides cover better, and the fruit dries more quickly after wetting.

This year, it's wet. I expect that flyspeck and sooty blotch pressure is already high, and so protection on a regular basis will be needed through to harvest.

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