



Healthy Fruit

Volume 13, 2005

Prepared by the University of Massachusetts Fruit Team

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Upcoming Meetings/Events

Date	Meeting/Event	Location	Time	Information
July 18	Massachusetts Fruit Growers' Association Summer Meeting *	Nicewicz Farm 116 Sawyer Road Bolton, MA	10 AM – 3 PM	Jon Clements 413-478-7219 or Wes Autio 413-545-2963

* Be sure to make your lunch reservation by Wednesday, July 13, by calling Doreen York, 413- 545-2254.

Sooty blotch and flyspeck -- active

Let me go out on a limb and say that this will be a major year for sooty blotch and flyspeck. We have had a lot of wet, warm weather, just the sort of weather these fungi love, and they have been growing in the woods and hedgerows on orchard borders for the last 6 weeks. There is a lot of inoculum for these diseases around.

Flyspeck is the disease to target. From its wild hosts near orchards, it began infecting plants in the orchard borders around early bloom and continued for a couple of weeks after petal fall. During that time, some spores may have made it into the orchard, but scab fungicides killed them. Research from North Carolina tells us that it takes about 270 hrs. of wetting on plants for a flyspeck infection to grow and produce spores. The primary infections on non-apple hosts in the orchard borders peak at about petal fall. About 270 hours later, new infections on these hosts produce conidia. The conidia are blown into the orchard, and it's these spores that cause the flyspeck on fruit in late summer. It takes another 270 hours of wetting from the time they land on fruit for the conidia to develop into "specks". Altogether, that's 540 hours of wetting from petal fall.

The key to efficient management is catching the infection a little before it is ready to develop into visible symptoms. Topsin M, Sovran and Flint have 100 *wetting hours* of post-infection activity. So, at about 270 wetting hours from petal fall, the first infections in the orchard start. Note that this assumes there are no fungicide residues left on fruit from scab sprays or an early cover spray. There's no a 100 wetting hr. window to apply a fungicide that will stop those infections. Rather than wait until a total of 370 wet hours (270 + 100), it's safer to make the application at around 320 wet hrs. from petal fall, just in case there were some mistakes made in counting wet hours or a long period of rain prevents the application.

Right now, at Cold Spring Orchard, we've accumulated about 350 wetting hours after petal fall. If no fungicides have been put on within the past couple of weeks, it's time to apply Topsin M (3 oz. / 100 gal) plus captan, or a strobilurine, Sovran (1.6 oz. / 100 gal.) or Flint (0.67 oz. / 100 gal.). This application will kickback to cover any infections that have started, and will

protect for another 3 weeks, or 2 in. of rain, whichever comes first. At that point, the 270 wet hour clock starts again.

But what if someone didn't stop fungicide applications, and put on a cover spray two weeks ago? It depends what the fungicide was. If it was a half rate of captan (1 lb./100 gal. 50W), then there was no kickback, but it will protect against new infections for 2 weeks. So, it's time to reapply.

If the spray had Topsin M, Sovran or Flint, then there was kickback. Since it has probably rained over 2 in., however, the 270 wet hr. count started whenever the rain took off the fungicide. Let's say that happened on Saturday, and that it hasn't rained since. It's possible to wait for another 100 hours of wetting, or probably more like 70 to play it safe, and then apply the Topsin M or strobilurine again. This stops any infections, and protects for another 3 weeks or 2 in. of rain. Alternatively, a series of half-rate captan sprays could be used for protection, but they must be applied every 2 weeks for the rest of the summer. Fewer applications are needed with the Topsin M/strobilurine approach, but this has to be weighed against the material expense and the need to make insecticide or calcium applications anyway.

Don't forget the non-fungicide approaches that can help summer disease management either. Think dry. It's hard this summer, but mow. Tall grass keeps the trees wetter. Grass is constantly pumping moisture vapor up into the canopy, and the taller it is, the more it pumps. Summer prune where trees are dense. Open trees up to the air. Think dry. D. Cooley

Apple maggot fly – also active (barely)

The UMASS Apple IPM team is beginning to see a few apple maggot flies on red sticky traps in the 11 blocks of the NE IPM Apple research blocks. So far the action threshold of 8 flies per 4 interior traps per 1 acre plot has not been reached in plots that use this management method. Most entomologists agree that at this early point in the season, the female flies are not ready to oviposit. We feel it is safe to wait until the action threshold is reached (of course this could be any day). Another set of plots, that are being managed with 3 calendar sprays, will get their first spray around July 15. A third set of plots, that use pesticide-treated spheres (Curveballs that have sugar caps containing a small amount of Spinosad), are all set and ready to go. The number of spheres per acre is determined by the combination of the following factors: tree size, quality of pruning, cultivar susceptibility, and bordering habitat. These plots will not be sprayed. A Tuttle

Fireblight strikes – what to do?

An occasional fireblight strike (shoot) has been observed on susceptible varieties such as Gala, GingerGold, Paulared, Cortland, Honeycrisp, and Cameo. It's best to cut those out during dry weather – be sure to cut well below (a foot or so) the base of the infection, and to be doubly cautious, sanitize pruners between cuts with alcohol or Clorox solution. There is some debate as to what to do with the prunings – some say it is OK to leave on the orchard floor if it dries out before the next rain, or, of course prunings can be removed from the orchard. J. Clements

Note: there will be no Healthy Fruit next week. The next Healthy Fruit will be published July 26, 2005.

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