



Healthy Fruit

Volume 13, 2005

Prepared by the University of Massachusetts Fruit Team






Issue 5, May 3, 2005

Current DD Accumulations

| Location | Base 32F | Base 43F | Base 50F |
|--|--------------|----------|----------|
| Belchertown, UMass CSO observed (01/01/05 – 05/02/05) | -- | 300 | 138 |
| Belchertown, SkyBit E-Weather (01/01/05 – 05/02/05) | -- | 264 | -- |
| Belchertown, UMass CSO observed (04/15/05 – 05/02/05) | 354 (32*) | -- | -- |
| Belchertown, SkyBit E-Weather (04/15/05 – 05/02/05) | (4*) | -- | -- |

• $\frac{3}{8}$ mature spores

Current Bud Stages

| Location | McIntosh apple | Honeycrisp apple | Pear | Redhaven peach | Cavalier sweet cherry |
|--|---|---|---|--|---|
| Belchertown UMass CSO (05/01/05) |  |  |  |  |  |
| | pink | early pink | first 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 10 | Fruit Team Twilight Meeting | Pine Hill Orchard, Shelburne, MA | 5:30 PM | Jon Clements 413-478-7219 |
| 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

Certainly April ended on a wet note compared to the first part of the month. There have been at least three scab infection periods since green tip on April 15 in Belchertown. (See Chart on last page.) Good fungicide coverage has been important. Average temperatures have slowed bud development, however, I expect some king bloom open by the end of the week. Make sure bee hives are in place by this weekend. European red mite eggs should be hatching soon, so it is likely too late for an oil spray. Otherwise, insect activity has been quiet, but a pink spray for plant bug is wise in orchards with a history of plant bug injury at harvest. J. Clements

Orchard radar

An extensive set of "Orchard Radar" apple disease, insect pest, and management forecast models is now available at PRONewEngland's web site:

<http://pronewengland.org/Content/PROInfoDecisionModels.htm>

According to the site, "Weather-based models are very useful in forecasting key life stage and management dates for insect and disease pests. Early warning helps pest managers get better results and use their time more efficiently." There are apple 'Pest & Crop Forecasts' for Belchertown, Waltham, and Wareham in Massachusetts. (South Deerfield is in the works). Sections include scab, fireblight, flyspeck, insects & mites and horticulture, as well as current and forecast weather conditions tailored for each site. Glen Koehler, University of Maine Pest Management Office is the originator and coordinator of Orchard Radar. He does say this about it: "Treat Radar estimates as one more piece of information to consider in making decisions, not as the judgment on what should be done in any given situation. For one thing, the estimates are all relative measures that do not incorporate widely variable levels of absolute risk at specific locations. For another, they only represent the biological situation. Orchard management decisions must also fit with economic, horticulture, grower values, marketing and other factors that apply to an individual orchard management system and which cannot be represented in mathematical models." I encourage everyone to take a look and see if it helps in making orchard management decisions. Let me know what you think. J. Clements

The New England scab bias

We spend a lot of time talking about apple scab in Healthy Fruit, and not much time talking about some other fungal diseases, such as powdery mildew and rust. That's because we're fortunate not to have much in the way of powdery mildew and rust pressure in New England. As economic problems, they really don't amount to much. So, as growers in New York worry about whether the fungicide they want to use will not only get scab, but also take care of rust during pink or early mildew infections, we can sit back, happy because other than the Ginger Gold we probably won't see any mildew.

There are infection periods and then there are infection periods

We have some excellent tools to help us determine what's going on with scab and infections. One, 'Orchard Radar' (see above article), takes satellite weather data and generates a tremendous amount of information on scab inoculum and whether fungicides are still active, and when the best time for the next application would be. On-site electronics have become more sophisticated, and tell us about infection periods and their intensity according to different models.

It's interesting to me and Jon this week that the two ways of looking at the risk from last week's infections agree in terms of the timing, but not in terms of the level of risk. Jon's on-site

monitoring indicates a relatively high risk from the Apr. 30 – May 1 infection, and on Apr. 23 - 24 infections, with moderate risk on Apr 27 -28. Orchard Radar, however, estimates that relatively little inoculum was available during these early infection periods. It may have to do with the way each calculates degree days. Degree days drive the maturation of scab ascospores, so any differences in degree days will show up as differences in ascospores.

My sense of the risk: probably very low during the first infection period, probably quite high during this last one. By the way, if protection and post-infection fungicides were not up to the job, then scab from the first infection period of the season should show up about May 8, this coming Sunday, at Belchertown.

The bottom line: we are in the riskiest part of scab season.

Weed control timing is ideal

Now is about the perfect time to apply herbicide(s) to tree fruit rows to control undesirable weeds and grasses. Weeds compete with fruit trees for light, water, nutrients, and space. They provide an alternate host for insects, diseases, nematodes, and they provide cover for undesirable animals (i.e., voles). They can affect crop quality and/or yield, and impede with orchard management and harvest. A tank mix application of a residual broadleaf and grass herbicide (Karmex, Sinbar, Solicam, Surflan, Devrinol, Prowl, Chateau) and post-emergence herbicide (2,4-D, Roundup) is recommended from now until bloom. Be sure to follow label restrictions on tree age, crop (apple, peach, cherry, etc.), and bearing vs. non-bearing trees. J. Clements

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

