






Healthy Fruit, Issue 6, May 6, 2008

Current DD accumulations

Location	Base 43F	Base 50F	Base 33F*
Belchertown, UMass CSO observed (01/01/08 – 05/05/08)	317	162	426 (46%)
Belchertown, UMass CSO SkyBit (01/01/08 – 05/05/08)	280	--	-- (9%)

* from April 16, green-tip date, for apple scab ascospore maturity (% mature spores)

Current bud stages

Location	McIntosh apple	Honeycrisp apple	Bartlett Pear	PF-14 Jersey peach	Cavalier sweet cherry
Belchertown, UMass CSO (05/06/08)	 king bloom +	 king bloom	 bloom	 petal fall	 freeze damage

Upcoming meetings/events

Date	Meeting/event	Location	Time	Information
May 20	Fruit Team Twilight Meeting	UMass Cold Spring Orchard Belchertown, MA	5:30 PM	Jon Clements 413-478-7219
May 21	Fruit Team Twilight Meeting	Kimball Fruit Farm Pepperell, MA	5:30 PM	Jon Clements 413-478-7219
May 22	Fruit Team Twilight Meeting	TBA	5:30 PM	Jon Clements 413-478-7219

Two pesticide re-certification credits offered at each Fruit Team Twilight meeting.

The way I see it

Well, we dodged a bit of a bullet last week with the cold that moved in Wednesday night and Thursday morning. I have confirmed reports of low temperatures in orchards of 26 F. (Deerfield), 28 F. (Belchertown), and 31 F. (Bolton). These were all the morning of May 1. Little bud damage has been reported, except for sweet cherries in full bloom, although in the Pioneer Valley asparagus and early sweet corn plantings suffered. Frankly, I have not seen the temperature drop so fast into the early morning hours during this early spring period. The cold seems to have been worse in western Mass. and eastern New York, although I have an unconfirmed report of a low of 25 F. in one normally colder eastern Mass. orchard. Fortunately apples were not in bloom, and now the forecast looks favorable for a good bloom period as we come into it.

Otherwise, as we come into this bloom period consider closely your fireblight risk and be prepared to apply streptomycin if the risk of infection warrants it. Ideally you should be running model(s) (Maryblyt or Cougarblight) to determine if a strep application is necessary, but you also need to watch closely your history of fireblight (last year was worse in years) and your cultivar/rootstock mix. Dwarf rootstocks such as M.9 and M.26 can succumb to fireblight, and topped off with susceptible cultivars such as GingerGold, Gala, Honeycrisp, or Paulared can be a recipe for real trouble. Be on guard.

J. Clements.

Healthy Fruit Disease Elements

Fire Blight. Jon and I have run Maryblyt for Cold Spring Orchard, and according to the latest projections the worst case has a moderate risk of infection for the next 3 days. Levels of risk are not near what they were last year, nor are they predicted to be so far at CSO. However, your conditions may differ, and it is best to evaluate risk on individual farms. Maryblyt requires that data be taken from green tip. However, Cougarblight requires data from the previous four days only. Information for using Cougarblight is available at this site:

<http://www.ncw.wsu.edu/treefruit/fireblight/mdl98f.htm>

For orchards that had fire blight last year, a streptomycin spray at bloom is recommended, particularly if rain is predicted. Given the low to moderate risk in most areas, if there was no history of fire blight last year, and copper was applied this spring, a streptomycin spray is not critical. However, again, risks vary by farm, and evaluate the weather and risk for your orchard.

Streptomycin may be mixed with a fungicide, though it is most effective is applied alone when drying is slow, to allow maximum absorption. Available formulations of streptomycin all contain 17% streptomycin, and include Firewall and Agri-Strep.

When streptomycin is applied to open flowers, those flowers generally will be well protected through petal fall. New-formed fruit don't have an opening to allow bacteria to enter, and are much more resistant to infection. It is critical that streptomycin applications cover flowers well, so avoid poor spray conditions (wind, etc.) and alternate row applications. Adding the nonionic spreader-activator Regulaid will improve coverage and uptake of streptomycin.

Nectaries at the bases of flowers are where bacteria enter apple trees, so it is critical that streptomycin reach flower interiors. If the streptomycin is not applied to an open flower, the residue inside that flower is greatly reduced or non-existent. It may be necessary to reapply streptomycin within two or three days of an initial application, not because the antibiotic loses efficacy, but because significant numbers of new flowers open.

Apple Scab. There have been several infection periods over the past week, and this is matched with high levels of inoculum. Do we need to say any more? After the rains, and because tissue is developing rapidly, fungicides should be reapplied to maintain protection. Risk is high – use protectant or post-infection fungicides to maintain control as recommended in last week's *Healthy Fruit*.

Brown Rot. Risk of brown rot infections on peaches remains high from bloom through shuck split. If you feel that you may not have had good coverage during the rains, consider an SI fungicide at this time (Indar, Orbit, Elite). Chlorothalonil (Bravo, Echo, etc.) may be used up to shuck split, but not after.

Bacterial Spot. With more bacterial spot showing up, remember that petal fall on peaches is an important time to control infections. The recommendations from states further south, such as New Jersey, where bacterial spot is a big problem are to start terramycin sprays (Mycoshield or Flameout) after shuck split, and to continue them weekly. They may be alternated with copper sprays, though many peaches are sensitive to copper to some degree, and it may end up causing as much damage as it does good.

The recommended rate is 12 oz. per 100 gal. of terramycin. However, Norm Lalancette in NJ stresses that the antibiotic should be put on dilute and when drying is slow. Here are his statements from the NJ management guide:

"The desired concentration [of terramycin] for control is 150 ppm, or 12 oz. of material per 100 gal. of water applied. Since it has a short residual of only 5 to 7 days, terramycin must be applied on a weekly schedule beginning at shuck-split. Furthermore, this bactericide is most effective when it gets inside the plant tissue. Thus, applications are best made when conditions allow slow drying, such as during the evening when relative humidity tends to be higher. This approach greatly improves tissue penetrations and subsequent control.

"For effective control of bacterial spot using this antibiotic, complete spray coverage is also critical. It is important to use a spray volume that thoroughly wets the foliage and fruit to the point of runoff. Typical volumes are 3 gal. per tree for planting densities of 80 trees per acre, which translates to 240 gal. of spray per acre. For trees of different sizes and/or densities, adjust the volume to maintain good wetting but maintain the concentration at 150 ppm."

D. Cooley

Insect trap capture update -- UMass Orchard, Belchertown



Spotted tentiform leafminer - significant catch (above threshold) when checked May 6. This is the tail end of the overwintering generation, will start laying eggs now on the underside of developing leaves. Bad weather (cool, rainy, wind) can have a significant impact on this generation of adults., but otherwise their presence should be a heads-up you might have a season-long leafminer problem unless treated. Adult/egg treatment should have already taken place (tight cluster to pink pyrethroid, Actata, Assail, Calypso). First next-gen egg hatch will occur in 2 to 3 weeks. Monitoring for mines should begin then (shortly after petal fall). Effective treatment(s) at that time -- targeting the larvae -- include Provado, Agri-Mek, SpinTor, Actara, Assail, Calypso, or Clutch.



Oriental fruit moth - significant catch (above threshold) when checked May 6. OFM is becoming troublesome in more peach and apple orchards where they coincide. There are up to three generations, the eggs/larvae of this first generation causing damage primarily to peach tree shoot tips. (Not a good thing in young orchards.) Succeeding generations damage the fruit and can result in 'worms in the fruit.' A petal fall peach spray is indicated -- Imidan is excellent unless they have developed resistance, in which case Asana, Warrior, Proaxis, etc. is a better choice. Mating disruption (Isomate OMF-TT) can also be used, however, the petal fall spray is still recommended as the twist-ties go up for 2nd and 3rd gen.

J. Clements

Nice trees available...

FYI, I received this e-mail from Tom Callahan, Adams County Nursery

J. Clements

From: Tom@acnursery.com
Subject: Pioneer Mac/26
Date: May 5, 2008 8:24:27 AM EDT
To: clements@umext.umass.edu

Jon,

Roy Wilson of Lee, NH has 336 Pioneer Mac/26 feathered available this year. He order more trees than needed for the block and is looking for a home for them. Phone # for contact: 603 868 7587, 516 996 6711. Farm manager phone #: 603 312 4787, Mike Lynch.

Tom A. Callahan
Director of Sales
Adams County Nursery, Inc.
(800) 377-3106
www.acnursery.com

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