



Issue 10, May 25, 2004

## Current DD accumulations

Location	Base 32 F	Base 43 F
Belchertown, SkyBit E-Weather (01/01/04 – 05/24/04)	--	665
Belchertown, SkyBit E-Weather (04/13/04– 05/24/04)	-- (99*)	--

% mature scab spores

## Orchard Radar for west-central Massachusetts (Belchertown)

## Orchard Radar for eastern Massachusetts (Waltham)

## Upcoming meetings/events

Date	Meeting/Event	Location	Time	Information
June 15	Fruit Team Twilight Meeting	TBA	5:30 P.M.	Jon Clements (413) 478-7219
June 16	Fruit Team Twilight Meeting	Mann Orchard Methuen, MA	5:30 P.M.	Jon Clements (413) 478-7219
June 17	Fruit Team Twilight Meeting (in cooperation with RI Fruit Growers)	Phantom Farms Cumberland, RI	5:30 P.M.	Heather Faubert (401) 874-2750
July 14	MFGA Summer Meeting	UMass Cold Spring Orchard Belchertown, MA	TBA	Jon Clements (413) 478-7219

## Insects *J. Clements*

Although **plum curculio** has not been particularly active recently – most fruit damage observed occurred during the warm weather right after petal – it does not mean you can keep your guard down. In warmer orchards, there is probably another full week (until June 1) where curculio will be active and full-block insecticide coverage should be maintained.

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**Leafminers** are somewhere between sap-feeding and tissue-feeding stages. There is still the possibility to control with Provado or Agri-mek if in the early sap-feeding stage. Otherwise, if you missed it, it's best to wait for the summer generation to treat.

Scout for **mites** now. In general, they have been absent, except there have been a few reports of high numbers, perhaps where an oil spray was missed or coverage was poor. The threshold for treatment is one mite per 100 (on average) cluster leaves sampled, or mites on 30% of leaves sampled.

Adult **peachtree borer** flight has likely started or will do so soon. If using mating disruption – which is very effective – dispensers must be in the orchard at the start of flight. Borers continue to be a problem in peaches – either mating disruption or an annual trunk spray (Lorsban 4E) is highly recommended in all peach plantings!

Dogwood borer in apples also need to be treated. Dwarf rootstocks with burrknots are most susceptible to dogwood borer infestation. There is no mating disruption available for dogwood borers, but an annual trunk spray (be sure to not hit fruit or foliage) of Lorsban 4E is the ticket.

If you have not already done so, you should look at **Orchard Radar** (for Belchertown or Waltham). This innovative website by Glen Koehler (UMaine) is a customized insect and disease forecast that is updated daily, and covers scab, fireblight, flyspeck, curculio, codling moth, apple maggot, and mites. It also has horticultural information, including a thinning weather synopsis. Check out Orchard Radar here:

<http://pronewengland.org/content/AllModels/Mamodel/RadarMa-belchertown.htm>

<http://pronewengland.org/content/AllModels/Mamodel/RadarMa-waltham.htm>

## **Diseases D. Cooley**

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*Showers at the End of Scab Season* – Fungi, the apple scab fungus included, love the weather we've been having for the past week or so. As of this week, if you think that there might have been a problem with the heavy infection periods on May 2 or May 9, then you should be able to see infections by now. Those lesions will have showed up, or will by the end of the week.

So, what if you go look in the most scab-prone spots in the orchard, and it's clean? Are you home free? Unfortunately, not quite yet. The primary infections are all over, the last spores being released in the rains of the past few days. But the real test will come towards the end of next week, when any early infections will have had time to spread and cause a visible second generation of scab. If you don't see any lesions by the end of next week, then you can declare it a successful scab management season. (Except in the very latest orchards that were in full bloom around May 16, where it will take another week).

That means scab fungicide coverage should be maintained through next week. As I said, apple scab loves this weather, and you don't want to leave an unprotected window of opportunity for it at the end of the primary season. There are a couple of things that can lead to tissue being unprotected: rain wash off and rapid tree growth.

The hit or miss heavy rain pattern we've been experiencing can make it tough to decide whether fungicide protection is still good. But remember, Captan has been shown experimentally to be effective for 7 days, at least, even after heavy rains. The EBDC's probably do as well, though they have not been tested as Captan was.

Growth is a little more difficult call. It has slowed some, but new tissue has to be protected with "redistributed" fungicide, until the next application is put on. When leaves are doubling in surface area every couple of days, and new terminal leaves are popping out, this can be a challenge. Fortunately, at this stage of the scab season, the risk of new tissue being exposed has dropped.

The bottom line is that fungicides for the next week or so can be one of the protectants (captan or an EBDC) used at no shorter than 7-day intervals. The risk of disease occurring is relatively low. The primary spores are gone in all areas, and the real challenge is to protect against secondary scab development. That is, those little lesions here and there that you might easily miss. They can be kept in check using one of the less expensive, protectant fungicides.

### **Horticulture *W. Autio and J. Clements***

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This week is likely the last week for chemical thinning. Most have already applied thinners once or twice. If you missed the boat and still want some additional thinning, NAA, carbaryl, or BA (Maxcel, etc.) are safe bets until king fruitlets reach 15 mm. At this time, fairly aggressive rates of thinners and/or combinations are recommended. Be aware, however, that it will take several weeks for thinning applications to take effect. Still, over-thinning is rare compared to under-thinning.

Over the last several years, much of the apple pruning effort has crept from mid winter to late winter to early spring, and some has even slid into late spring. Physiologically, apple trees are not harmed by “normal” structural pruning as late as mid June. The only concern is that care is taken to not damage many of the developing fruitlets. If you are wondering whether or not pruning is still possible, it likely is more desirable to prune now rather than putting it off until next dormant season. Additionally, the benefits obtained from summer pruning will be greater if some of the structural cuts are made now.

Much growth-control effort has shifted to the use of Apogee in recent years. If you wish to utilize a non-chemical approach, however, now is the time to ring or score trees. These two techniques are actually tree girdling! Scoring is a single cut made with a knife completely encircling the trunk at the base of the tree. Ringing is a similar cut but with the removal of some bark tissue. Scoring is easily performed with a curved linoleum knife, and ringing can be done with a saw (for 1/16 inch cuts). This is best done when terminal growth is between 4 and 6 inches, but it will be effective somewhat later. Generally, we recommend not girdling weak trees. It is best to use scoring primarily and ringing only sparingly. For more information on growth control, see the Fact Sheet F-101R ‘Controlling Growth of Apple Trees,’ <http://www.umass.edu/fruitadvisor/factsheets/growthcontrol.htm>.

For situations where the crop is lost due to frost or hail, ethephon (Ethrel) can be an excellent treatment for reducing vegetative growth. Apply ethephon at 1-2/3 pint per 100 gallons dilute (500 ppm) when growth is 4-6 inches and again a month later if needed at 1 pint per 100 gallons (300 ppm). If trees are fruiting, ethephon will cause thinning! Ethrel at low rates (1/2–3 pint/acre) applied 6 weeks after bloom can also increase flower bud development in bearing trees.

Boron is essential for many plant processes. Deficiencies result directly in apple fruit disorders, but also reduce calcium uptake. Proper boron management is essential to your calcium-management program. Boron can either be applied to the soil annually at a rate of 2-3 lbs of actual boron per acre. Alternatively, it can be applied foliarly at a rate of 3 lbs Solubor® (or other soluble boron source providing an equivalent amount of boron) per 100 gallons (dilute) in the first and third cover sprays (but no later than 30 days after petal fall). Concentrations should not exceed 6X, and take care to dissolve water-soluble pesticide bags in the tank before adding the boron. Do not apply boron to peaches unless they are known to be deficient, and if they are, do not exceed 1 lb of actual boron per acre.