



## Healthy Fruit, Issue 8, May 20, 2008

### Current DD accumulations

Location	Base 43F	Base 50F	Base 33F*
Belchertown, UMass CSO observed (01/01/08 – 05/19/08)	486	251	749 (96%)
Belchertown, UMass CSO SkyBit (01/01/08 – 05/19/08)	460	--	-- (74%)

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

### 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	Noquochoke Orchard Westport, MA	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: observations from Belchertown

**Apples** are at petal fall plus. Fruit size ranges from 4 to 6 mm on setting fruit. Set looks good in general, however, it is too early to get a real good picture. A petal fall application of Sevin XLR+ at 1 pt./100 gallons dilute to start the thinning process is relatively fail-safe. (And provides a week at most insecticide protection.) By this weekend, with warmer weather predicted, we may be in a true thinning window, so plan accordingly. A couple very important points to keep in mind when thinning apples: first, cool weather slows the action of thinning sprays, i.e. it will take longer for the sprays to work and for you to see the results. Do not make any thinner applications unless the temperature is between 60 to 85 F.; second, growing fruit are 'keepers' and are probably going to set. Fruit that has stopped growing are 'losers.' Your ability to track fruit growth can help you make a decision on how much more thinning is needed. (See Duane Greene's article 'The apple thinning picture.') Curculio are also likely to be active, so the first cover spray coming up may be an important one. Scab pressure has been moderate to high, with prolonged wetting and an infection period late last week. To date, there have been four major scab infection periods in Belchertown. The primary season is not over yet, so maintain very good fungicide coverage. Rotate your apple scab fungicides to delay resistance development. Fire blight has been a non-issue this year, although the models were close back on May 8 -- some growers

may have applied strep if they were in bloom then. Now is the time to apply Apogee before new shoot growth gets too long.

**Pears** are at complete petal fall with fruit size up to 8 mm. Set looks excellent, as they were in bloom before apples and during a nicer period of weather. For thinning now, use NAA (Fruitone-N or the new liquid formulation, Fruitone-L) at 10 to 15 ppm. Do not apply when the temperature is below 60 or above 85 F. (Same could be said for apples.) Maintain fungicide coverage for pear scab and fabraea leaf spot. Pear fruit will also become susceptible to curculio injury this weekend if the weather forecast holds.

**Peaches** are at early shuck split. Now the fruit become quite susceptible to curculio and plant bug injury. Plan an insecticide application; Imidan, or a labeled pyrethroid being the best choice for plant bug. Brown rot diminishes in concern now (until fruit start to ripen), however, if weather warrants -- meaning warm and rainy -- a final fungicide spray (Bravo) for brown rot is a good idea. Blocks of cultivars susceptible to bacterial spot should begin a weekly (or almost weekly) program of Mycoshield or Flameout sprays at shuck split. Mating disruption ties (Isomate-M 100, LPTB) for peach tree borers and/or oriental fruit moth can be starting in the next week.

**Cherry** fruit size is up to 8 mm on earlier blooming varieties such as Chelan. Curculio injury has already been observed. Guthion is probably the best option, however pyrethroids, Lorsban, or Assail are other options. (Do not use Imidan on sweet cherries.) Now is also the time to treat for black cherry aphid -- Assail, Lorsban, or M-Pede being good control options. Brown rot and/or cherry leaf spot can be controlled with Bravo, Captan, Indar, etc. J. Clements.

### ***The apple thinning picture***

The postbloom period has been characterized by cool temperatures and breezy conditions. Generally good initial set can be expected if cool (not cold) temperatures occur and bee activity is good. Bloom appears to be at least adequate in most orchards. Therefore, it appears that thinning will be a required activity this year.

Cool temperatures are forecast through Thursday and possibly on Friday also (May 23). If you are now experiencing petal fall and the bees are coming out of the orchard, now is an appropriate time to apply a petal fall spray on blocks that had at least moderate bloom and pollination was suspected of being good. Routinely, we do not suggest timing a petal fall spray with a warm temperature period. Carbaryl alone is the least aggressive thinner you can use at this time. In blocks where heavy set historically occurs application of carbaryl with NAA is appropriate. The use of NAA at this time is unlikely to cause too much thinning. NAAM (NAD, Amid-Thin) is an underutilized thinner at petal fall. In previous years it has been used at this timing on early maturing varieties and on Macoun.

Most orchards are probably past petal fall. The 7 to 12 mm fruit size stage is the time when fruit are most vulnerable to a thinner. However, to thin successfully during this developmental stage the timing of the sprays should coincide with a time when trees will be exposed to at least 3 days where temperatures reach into the 70s. The current weather forecast indicates that favorable temperature conditions for thinning will occur from Saturday through next Thursday (May 24 to May 29). This is a large (apparent) window of opportunity. If fruit have reached the 7 to 8 mm stage this is the time to make most of your thinner applications to assure adequate thinning.

NAA is now available in a liquid form, Fruitone L. In tests conducted in Massachusetts and at many other locations throughout the United States the liquid formulation performed at least as well, and in some times better, than the Fruitone N formulation. The two products are of comparable strength. We recommend making no adjustments if you use the liquid formulation this year. (Actually, they are the same on an ounce-by-ounce basis to get the desired ppm.)

We would like to remind you that the use of Apogee can, and frequently does, affect thinner response. In recent test we have confirmed (1) Apogee can increase fruit set even when used at the recommend rates on the label and (2) Apogee can make it more difficult to thin, even if fruit set is not affected. An adjustment in your thinning program to a more aggressive stance may be appropriate, especially if the petal fall application rate of Apogee exceed 4 oz/ 100 gal based upon a dilute tree row volume dilute basis.

Over the past few years we have been developing a model to predict thinner response on apples. The details of the model have been worked out sufficiently such that it is available for testing for those interested. The model comes with a spreadsheet that makes all necessary calculations. The spreadsheet and the instructions can be downloaded at <http://www.umass.edu/fruitadvisor/2008/predictfruitst2008.xls> and <http://umass.edu/fruitadvisor/2008/predictthinprocedure.pdf>.

### **New fire blight management Fact Sheet**

A new Fact Sheet 'F-133 An Annual Fire Blight Management Program for Apples' has been posted on the UMass Fruit Advisor web site, <http://www.umass.edu/fruitadvisor/factsheets/factsheets.html>. It is a comprehensive discussion of some of the issues related to fire blight management, and although it looks like the fire blight risk for this season has been low, it is not over yet and your review of the Fact Sheet is highly recommended.

### **Horticultural exercises**

- Newly planted trees should get fertilizer ASAP; 3 to 4 ounces of calcium nitrate evenly distributed in the root zone is the safest and best bet. Follow-up with another application in 30 days.
- Fertilizer should be applied to bearing trees, preferably based on last year's leaf analyses. See F-124 Nutrient Recommendations for Apples (<http://www.umass.edu/fruitadvisor/factsheets/nutrients.htm>) for specific rates. For peaches, nitrogen should be applied in split applications for a total of 0.1 lb actual N per year of tree age.
- Developing shoots that compete with the developing leader of newly planted trees should be 'stripped' out when they reach 2 to 3 inches long. See 'Techniques for Training Young Apple Trees', <http://www.umass.edu/fruitadvisor/clements/articles/youngtreetraining.htm>, for details.
- Detail pruning of peach trees should be done as soon as a crop is affirmed. This means removing small, weaker shoots with hand pruners in favor of longer, 'hanger' shoots that will bear the majority of this years peach crop. You will accomplish both thinning and improve tree health with such a practice.
- It's still not too late (but getting there!) to apply pre-emergent herbicides to achieve season-long weed control of annual grassed and weeds. New pre-emergent herbicides such as Prowl H2O, Chateau, and Matrix FNV can give excellent control when applied early enough (before June 1) and to almost bare ground. Include a contact herbicide (Gramoxone, Roundup) if necessary.
- Stake or support newly planted trees ASAP. Growth and establishment will be enhanced by early tree support.

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