

# Healthy Fruit

Volume 13, 2005

Prepared by the University of Massachusetts Fruit Team






Issue 7, May 17, 2005

## Current DD Accumulations

Location	Base 32F	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/05 – 05/16/05)	--	430	203
Belchertown, SkyBit E-Weather (01/01/05 – 05/16/05)	--	383	--
Belchertown, UMass CSO observed (04/15/05 – 05/16/05)	632 (82*)	--	--
Belchertown, SkyBit E-Weather (04/15/05 – 05/16/05)	(45*)	--	--

• % mature spores

## Current Bud Stages

Location	McIntosh apple	Honeycrisp apple	Pear	Redhaven peach	Balaton cherry
Belchertown UMass CSO (05/16/05)					
	petal fall	bloom +	petal fall	early p. fall	petal fall

Current bud stages also available on UMass Fruit Advisor, <http://www.umass.edu/fruitadvisor/>

## Upcoming Meetings/Events

Date	Meeting/Event	Location	Time	Information
June 14	Fruit Team Twilight Meeting	UMass Cold Spring Orchard, Belchertown	3:00 PM	Jon Clements 413-478-7219
June 15	Fruit Team Twilight Meeting (with UNH Extension)	High Hopes Orchard, Keene, NH	5:30 PM	Jon Clements 413-478-7219 George Hamilton 603-641-6060
June 15	Fruit Team Twilight Meeting (with URI Extension)	Sweet Berry Farm, Middletown, RI	5:30 PM	Jon Clements 413-478-7219

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## The way I see it

Well, we are clearly into bloom or petal-fall for all Massachusetts orchards. In Belchertown, McIntosh full bloom was in full force last Thursday (May 12) and we are now well into petal-fall. The weather has been on the cool side, but better than predicted. We've had several days of acceptable pollination weather, although bee activity has certainly not been excessive. A touch of frost last Friday morning (31 F.) resulted in some brown petals in the lower half of trees, however, did not result in significant damage. Reports of lows in the upper 20's in colder spots and frost pockets may have browned a few fruit buds. It's time to start thinking about a petal-fall thinning application. The cold winter, a prolonged period of cool weather leading up to a heavy bloom, and now the scattered frost, leads us to think you may want to tread carefully when thinning this year. More below. J. Clements

## Entomology

Regarding a petal-fall insecticide spray for apples, there are several pests that come to mind. **Plum curculio** is certainly an issue as temperatures rise. **Tarnished plant bug** and **European apple sawfly** are also active. Over-wintering generation **oriental fruit moth** adults are in the air. If an OP insecticide is used (Guthion or Imidan), that is effective (more or less) on all of the above. A petal-fall thinning spray of carbaryl will also carry you for about 7 days before another insecticide is needed. Remember that bee hives should be removed from the orchard before these sprays are applied. In orchards with an extended bloom or numerous varieties, getting an insecticide on early enough can be difficult. Some of the newer insecticides – Avaunt, Actara, and Assail – are better options than OP's in this case. These can be applied in the very early morning or evening, and as long as residues have dried before bees start foraging, they should be OK. These materials have differing degrees of efficacy on the above-mentioned pests, so consult the label or previous issues of Ron Prokopy's March Message ([http://www.umass.edu/fruitadvisor/march\\_message/index.html](http://www.umass.edu/fruitadvisor/march_message/index.html)) for details.

Another pest to consider now are **leafminers**. Orchards with a history of leafminer problems at harvest and/or heavy trap catches should apply an insecticide at petal-fall to treat egg-laying adults and sap-feeding mines. Provado or Assail are good choices at this timing.

Stone fruit will become susceptible to insect injury at shuck-split. Of particular concern are tarnished plant bug on peaches and nectarines, and curculio on cherries. A pyrethroid (Asana, Ambush, Pounce) is best for plant bug on peaches, while Guthion is the best choice for curculio on cherries.

Finally, remember to consult **Orchard Radar** -- <http://pronewengland.org/Content/PROInfoDecisionModels.htm> -- there is much more entomology information and pest forecasts for Belchertown, Waltham, Wareham, and South Deerfield) there. I also regularly update weather data and scab/fireblight/curculio models for Belchertown (based on on-site weather station) at <http://www.umass.edu/fruitadvisor/hrcweather/index.html>. J. Clements

## Horticulture

At the risk of repeating myself from last week – it *has* been a rather drawn-out bloom – but right after bloom and into petal fall there are a few things to keep in mind. First, **Apogee** should be applied to apples when new shoot growth is 1 to 3 inches long. That can happen at petal fall or shortly thereafter. (For many orchards that means this week!) Delaying Apogee application can result in sub-optimal growth control. For details on Apogee application, see Fact Sheet F-

127R – Apogee, a New Growth Retardant for Apples

(<http://www.umass.edu/fruitadvisor/factsheets/factsheets.html>).

Second, post-bloom sprays of **calcium nitrate** (5 lbs/acre) will enhance fruit growth and leaf health during this critical period of fruit set and growth. Use through the third or fourth cover spray then switch to calcium chloride or some other formulated calcium spray. With this extended cool weather and bloom, trees may need that extra shot of nitrogen until new shoot growth and leaf expansion are well underway.

Finally, a petal-fall spray of **carbaryl** is a good, effective, and safe start to the fruit thinning process. If using Sevin XLR, 1 to 2 pints/100 gallons (dilute) is the recommended rate – use the lower rate for easy to thin varieties, the higher rate for more difficult to thin apples. **NAA (Fruitone-N)** at 5 to 10 ppm is also a safe start to the thinning game. **BA (Maxcel, Exilis Plus)** could be used as soon as the weather warms up (75 F. and up) and fruit size approaches 10 mm.

At last week's twilight meetings, there was some discussion about weak and/or damaged spur leaves from the unseasonably cool weather during bud-break through (a heavy) bloom and from winter cold. Plus, we have now had some frost to complicate the picture. The pollination weather has been OK, but far from perfect. Repeating, Duane Greene felt that the amount of fruit thinning we are going to have to do this year should be closely evaluated. Still, a petal fall thinning spray is a safe bet – just use your 'gut feeling' and observation of fruit growth and weather conditions he emphasized to evaluate the need for further thinning sprays. Don't forget to consult 'F-118R Thinning Apples Chemically'

(<http://www.umass.edu/fruitadvisor/factsheets/factsheets.html>) for more information on chemical fruit thinning. J. Clements

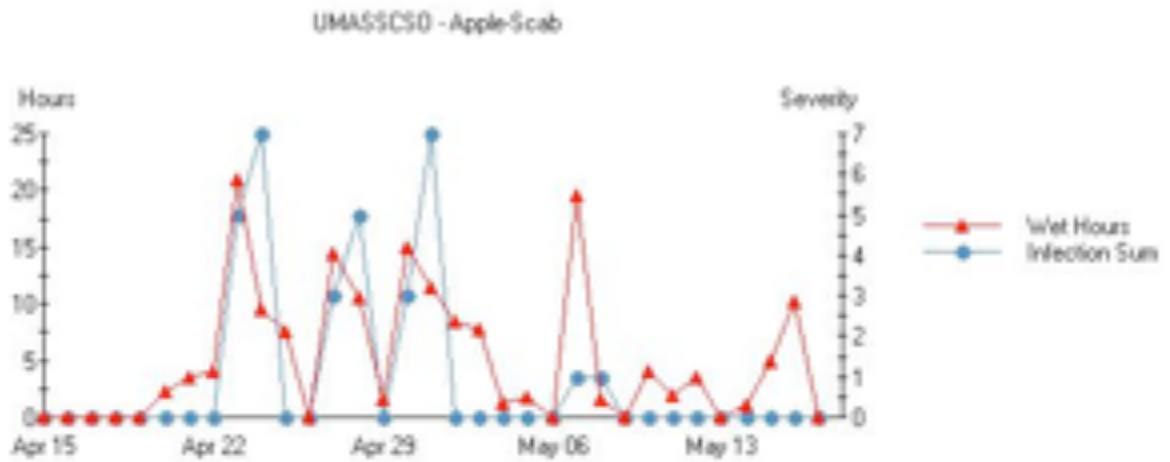
## Diseases

Despite the threat of significant rain last weekend and an almost certain **apple scab** infection period, we escaped the bullet here in Belchertown (i.e., no scab infection period, see page 4). I suspect some orchards may have had more wetting, and thus did have one. If you had a protectant fungicide on, you should be all set. Now, it would be nice to get through bloom so that a petal fall fungicide/insecticide spray could go on at the same time. Remember, with wetting, the risk of infection is very high right now – be safe and make sure your fungicide coverage includes all potential infection periods, and if in doubt about this past weekend's outcome, you might want to apply a fungicide with 96-hour kickback by Wednesday of this week at the latest. (Include a protectant too for the next upcoming rain event.)

Pears are nearing complete petal fall and fungicide coverage should be maintained for **fabraea leaf spot and pear scab**. An EBDC fungicide (Dithane/Manzate/Penncozeb) mixed with Benlate works for both, and Flint or Sovran are also effective on scab.

Finally, the **fire blight** models have been on the edge (at least for Belchertown, see <http://www.umass.edu/fruitadvisor/hrcweather/index.html>, and page 4). The weather has not really been warm enough for bacteria to build up to a level where there is a significant danger of blossom blight infection. The only real threat was late last week, with bloom just coming on, so those orchards in bloom at that time with a history of fireblight or with susceptible cultivars should have already been treated with streptomycin. With bloom fading and no hot weather predicted, the risk will likely diminish now for now. J. Clements

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



Fireblight infection risk at UMass Cold Spring Orchard, Belchertown

