



Healthy Fruit

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Prepared by the University of Massachusetts Fruit Program

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<http://www.umass.edu/fruitadvisor/>

Current DD accumulations

	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/06 – 06/12/06)	940	502
Belchertown, UMass CSO SkyBit (01/01/06 – 06/12/06)	830	
Belchertown, UMass CSO observerd (05/15/06 – 06/12/06)		334*

*308 Degree Days (DD, Base 50) since petal fall marks the end of when insecticide coverage is needed for curculio

Upcoming meetings/events

Date	Meeting/ event	Location	Time	Information
July 14	Summer Meeting - Mass. Fruit Growers' Assoc.	UMass Cold Spring Orchard 391 Sabin Street Belchertown, MA	TBA	Duane Greene 413-545-5219

Plum curculio degree-day model -- J Clements

As of yesterday (12-June) we had accumulated just DD's (Base 50) from petal fall (May 15, at the UMass Cold Spring Orchard). This marks the end of plum curculio immigration, hence also the end of the need for insecticide coverage. So, if your last curculio spray was sometime in the last 7-10 days you are done. (Assuming you are similar to Belchertown, i.e. not much cooler.)

EPA releases proposed decision on azinphos-methyl and phosmet -- J Clements

In the June 9 Federal Register (<http://www.epa.gov/fedrgstr/EPA-PEST/2006/June/Day-09/p8929.htm>) EPA published their Proposed Decision: Notice of Availability on the fate of azinphos-methyl (Guthion) and phosmet (Imidan). From the Federal Register:

EPA is proposing a schedule to phase out the remaining uses of azinphos-methyl and is proposing to lengthen some restricted-entry intervals (REIs) and seek additional biomonitoring data for the nine time-limited uses of

phosmet. EPA is also proposing certain additional restrictions on the use of azinphos-methyl and phosmet.

Specifically, they are proposing to phase out the use of azinphos-methyl on apples, cherries, and pears by 2010 and increase the re-entry interval on phosmet from 3 to 7 days. There is a 60 day comment period on this proposal -- directions are on the Federal Register website mentioned above. Although there is still the possibility of a change of heart at EPA, the writing is on the wall. We are about to enter a brave (and costly) new era of insect pest management that ought to factor into every growers orchard management and business plan of the future.

Late-season "rescue" thinning with Ethephon, new fact sheet F-129A -- J Clements

A new Fact Sheet F-129A Late-season "Rescue" Thinning with Ethephon is now available on the UMass Fruit Advisor:

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

Last weeks Healthy Fruit described the use of Ethephon if additional fruit thinning is needed after the traditional thinning period passed. This late thinning window is typically when fruit are about one inch in diameter. My overall feeling is we will not have to do much (if any) late thinning this year as the cloudy/rainy conditions during and post-bloom allowed any early thinning application of carbaryl/NAA/BA to do their job quite well. In fact, later blooming cultivars such as Gala are undergoing heavy June drop in some orchards. Still, it's nice to keep this fact sheet in mind for reference in coming years.

Using plant growth regulators for return bloom on apple -- W Cowgill

Note: this article reprinted from Rutgers Plant & Pest Advisory, Fruit Edition, June 6, 2006

Roughly 25-30 days after full bloom is the rule of thumb for the end of the thinning window, and the beginning of the flower bud development stage. Though this is a rough guideline, actual physiological responses are a result of degree-day accumulations. Apple flower buds are formed in June and July for most varieties.

In addition to utilizing the hormonal type chemical thinners (NAA, NAD, BA, Ethephon) at the normal thinning windows, research has shown that both NAA and Ethephon can also be applied in supplemental applications to enhance flower bud formation for the following season.

Beginning 4-6 weeks after full bloom and after June drop, growers can begin using Ethephon or NAA applications to stimulate return bloom. June drop is the key time marker here, as the timing varies from year to year.

Ethephon

Ethephon is a synthetic compound that is broken down in plant tissue to form ethylene. When used throughout flower bud development, ethephon can be highly effective in influencing return bloom. **We suggest using Ethephon at 150 PPM which is 0.5pints/100 gallons.**

New York recommends 2-3 applications one week apart, depending on variety. Golden Delicious, Jonagold, Macoun and Mutsu require 2 sprays, while Suncrips, Fuji, and Honeycrisp suggest 3 applications. Growers may wish to avoid use of Ethephon on Macoun for bloom return as it has caused premature ripening in NY. I have not seen that in northern NJ.

No more than 1-2 applications should be made on early maturing cultivars like Gingergold, Paulared and other August maturing varieties.

Annual cropping of Fuji has been achieved with the calculated use of Ethrel by some West Coast growers. Growers have found that rates of 1 pint/acre at 30 and 45 days after full bloom have allowed them to dramatically reduce the biennial cropping tendency of Fuji (note Fuji is very hard to thin, so 30DAFB is not too soon to begin at the 150 PPM rate.)

Non-bearing Trees

Ethrel on non-bearing apples can be used at 2-8 pints per acre (300-450 PPM) beginning 2-4 weeks after full bloom. However these trees should have filled their space and be ready to bear the following year. Tree growth with Ethrel will be reduced.

NAA

Can also be used for return bloom. One approach to is to consider use of NAA at 30 days after full bloom at 3 PPM and make repeat applications at 5 PPM at 7-10 day intervals. The label calls for 2-3 applications on hard to thin cultivars. West coast growers have experimented with up to 5 applications.

Growers considering the use of PGR's for return bloom need to be in tune with their orchard conditions before making any application. PGR's can be very beneficial to a growers operation, but their use requires a careful understanding of all parameters their application can influence. **Begin slowly and follow all label rates, guidelines and precautions. The label is the law.**

Healthy Fruit disease elements -- J Clements

Brown rot on sweet cherries -- the few sweet cherry growers we have out there have recently suffered through some of the worse weather you could possible get when early varieties are starting to ripen. Cracking and June drop are prevalent. Ripening fruit with cracks and/or defects are prime brown rot infection sites, and cherry growers will need a rigorous brown rot fungicide program until harvest if the weather is at all wet and/or humid. Brown rot fungicides rated as excellent include Indar, Orbit, and Elite. Materials rated as good include Flint or Pristine. All have a zero day pre-harvest interval except for Flint which is one day.

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