Volume 14, 2006

UMassAmherst EXTENSION

Healthy Fruit

Prepared by the University of Massachusetts Fruit Program

Healthy Fruit, Issue 10, June 6, 2006

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

Current DD accumulations

	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/06 – 06/05/06)	826	438
Belchertown, UMass CSO SkyBit (01/01/06 – 06/05/06)	830	
Belchertown, UMass CSO observerd (05/15/06 – 06/06/06		263*

*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
June 6	Fruit Team Twilight Meeting	Outlook Farm 136 Main Road, Westhampton, MA	5:30 PM	Jon Clements 413-478-7219
June 7	Fruit Team Twilight Meeting	Sunny Crest Orchards 24 Hawkins Lane, Sterling, MA	5:30 PM	Jon Clements 413-478-7219
June 8	Fruit Team Twilight Meeting	Young Family Farm 242 West Main Road (Route 77) Little Compton, RI	5:30 PM	Heather Faubert 413-478-7219
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 (05-Jun) we had accumulated just 263 DD's (Base 50) from petal fall (May 15, at the UMass Cold Spring Orchard) of the 308 needed that marks the end of when insecticide coverage is need to control curculio. It will probably be at least another week before you can relax a bit and curculio season will be over. Keep in mind that it is important to

maintain border row coverage (at the least) until we hit 308 DD's and curculio immigration has apparently stopped. Of course this also assumes you are similar in temperatures to Belchertown.

Weather and Apple Thinning in 2006 -- W Cowgill and W Autio

Note: this article was printed several weeks ago in the New Jersey Plant & Pest Advisory Fruit Edition. Please bear this in mind, as some of the comments may be history and/or irrelevant to our situation. Still, many useful suggestions. JC.

The weather in Northern NJ and throughout New England has been lousy. Many cloudy days, temperatures in the 50-60's and over 2 inches of rain in North Jersey. Eastern New England had been hit with 9-14 inches of rain with severe flooding in many of the apple areas in Massachusetts, New Hampshire and Maine.

The challenge we face is how much fruit is staying and how much will come off as soon as we get some heat and sun. I applied thinning treatments 9 days ago at the Rutgers Sndyer Farm but the results are not evident yet. Growers that used Maxcell or other 6BA products in cool weather are not happy with the results to date. 6BA does not work well in cool weather, 70 or lower.

I do feel we had good pollination so we will need to wait and see what sun and warmth brings on. I did get good tinning at PF with Sevin XLR on many cultivars. This has become our standard treatment on all cultivars to begin with.

Here are some thoughts I gleaned from Dr. Rich Marini at the IFTA PGR workshop in February 2006 at Hershey, PA

- How much light do you really need to get fruit set? You need 50% full sun to get good fruit set
- Big fruit wont come off at 14mm if it is cool, large fruit respond more to warm temperatures
- Cool days at thinning time tend to be in low light
- 2 days before thinning if temperatures are cool= poor thinning
- More thinning if temperatures before and application warm (75F)
- Conditions for under-thinning = high light +low temp especially if average fruit diameter is 14 mm
- Conditions for over-thinning = low light + high temperatures
- Warm = 75F

Late Window Thinning

Many growers have fruit that is approaching 12-15 mm. Most thinners will work on fruit up to 15MM if applied in warm temperatures, mid 70's would be ideal. Two days of warm before, during and after application would be ideal.

Most thinning materials become much less effective after fruit reaches 15mm or larger size.

What does the above mean to you, the grower? If you have not adequately thinned by this size, 15MM, and you have had some warm sunny weather and know the fruit is going to stay on, you then have one last window to apply from 18-25 mm. Ethephon is your best option for thinning in this time frame. We consider this an emergency last ditch effort to get the fruit off with PGR's and avoid hand thinning.

Ethephon for Late Thinning

Ethephon has has been effective for many apple growers as a late rescue treatment for thinning in the 15-25MM window. Ethephon is marketed by Micro Flo Company as

Ethephon 2 and also by Bayer Crop Science as Ethrel® brand Ethephon. Ethephon is a synthesized natural hormone of apples that has many uses including apple thinning.

Ethephon is rate dependant and sensitive to temperature at both the time of application and for several days following application. The rate depends on both the timing of the application and the variety. It is labeled on apple for thinning at 1.5 to 8 pints per acre. Our NJ experience follows those of other mid-Atlantic states in that Ethephon or Ethrel is the only material we can count on as a late rescue treatment for thinning in the 20-25MM window. It is rate dependent with certain cultivars being more sensitive. Rates range from 0.5 pint 100 gallons up to 1.5 pint per 100 gallons.

Rates of Ethephon from Dr. Beyers work in VA for use at 20-25mm
Maximum rate of 300gal TRV dilute even if trees are larger.

Rome	0.4pt/100gal dilute TRV
Golden Delicious	0.5pt/100 dilute TRV
Spur Red Delicious	1.5pt/100gal dilute TRV
York	1.5pt/100gal dilute TRV
Gala	0.75pt/100gal

Dr. Wes Autio has done 3 years of research on the following cultivars with Ethrel @20-25mm

McIntosh	200-300 ppm (2/3-1 pint/100) TRV dilute
Macoun	200-300 ppm (2/3-1 pint/100) TRV dilute (limited experience)

My experience with Fuji is that it is similar to Red Delcious 1-1.5pt/100gal dilute TRV

Note the following:

•Ethephon can defruit trees especially if temperatures warm to mid 80's or higher.
•Response may be less than ideal
•Return bloom enhanced ~ 30-50%

Please call me and discuss if you have any questions, talking it through is a good approach.

Healthy Fruit disease elements -- D Cooley

So Far, No Apocalypse. There is scab to be found if you want to look. However, in most cases it isn't disastrous in spite of the difficult spraying conditions in May. At this point, keep scouting, and refer to last week's *Healthy Fruit* for eradication recommendations, if needed.

One additional note concerning rates. Dave Rosenberger has an interesting comment in this week's Scaffolds. He says, basically, that if a grower is very conscientious about tree row volume, and has small trees, it's easy to go below an effective rate for some fungicides. This is especially true if you're trying to clean up a bad scab situation and need all the fungicide you can get. The simple summary is that a grower should keep rates so that they don't fall below the minimum per acre.

For Rubigan and Procure, apply no less than 8 oz. per acre even in relatively low volumes of water, and for Nova no less than 4 oz. per acre. With Flint, keep rates above 2 oz. per acre, and with Sovran 3.2 oz. per acre.

This will insure that the concentration of fungicide doesn't reach a level that is too low to be effective. In using materials for spore suppression and eradication, it's best to use higher rates.

Is It Summer Yet? It's important to give scab time to develop, at least 10 days from the last primary infection period. The last infection period of any consequence came at the end of May, and symptoms for that will be visible by now or within a day or two.

If an apple orchard has no active scab right now, it's a period when fungicides really aren't needed. From here on out, sooty blotch and flyspeck are the diseases of concern.

At the moment, flyspeck is still building up on plants around the orchard. About 75 to 80% of the primary inoculum for flyspeck has been released, and that inoculum is growing, but only on wild plants. Fungicide protection from the last scab sprays is preventing infections on fruit. The real infections will come when the primary inoculum has developed in the borders, and condia start to move into the orchard.

That generally happens after about 250 hrs. of wetting from petal fall. Since it has been a wet year, there are already 178 hrs. accumulated at CSO in Belchertown. So it's likely that we will have to spray fungicides for summer diseases within the next 2 to 3 weeks. For this week, it's still a little early, and scab fungicides are still at work.

Winning Websites workshop -- J Clements

The Massachusetts Association or Roadside Stands is sponsoring a 'Winning Websites' workshop on June 12 at the Brigham Hill Community Farm in North Grafton, MA. The workshop starts at 3 PM and features nationally recognized farm/direct market expert Jane Eckert of Eckert AgriMarketing. From a MARS news release:

> "Today a website isn't just important, it's mandatory for a successful farm marketer. A well designed site can make a big difference in cash flow whether you use it to sell products or promote on-farm events. What elements make a website work? Find out from farm marketing expert Jane Eckert who developed a highly successful website for her family's farm. She'll teach you how to use photographs, links and make user-friendly home page that will make guests return to your site again and again."

The cost is $10 per person. Please register by contacting Lynn Hartman, 978-355-2015 or hartmansherb@hotmail.com