








Healthy Fruit, Issue 7, May 13, 2008

Current DD accumulations

Location	Base 43F	Base 50F	Base 33F*
Belchertown, UMass CSO observed (01/01/08 – 05/12/08)	402	209	588 (75%)
Belchertown, UMass CSO SkyBit (01/01/08 – 05/12/08)	371	--	-- (32%)

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

Current bud stages

Location	McIntosh apple	Honeycrisp apple	Bartlett Pear	PF-14 Jersey peach	Cavalier sweet cherry
Belchertown, UMass CSO (05/12/08)					
	early petal fall	bloom	petal fall	fruit set	fruit set

Note: this will be the last bud stage update for 2008

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

Everyone keeps saying what a ‘funny’ spring it has been. I can’t argue, but we should have learned by now, that we never have a ‘normal’ spring. Orchards are in various stages of bloom but headed into petal fall. Caution is being advised in the Hudson Valley on petal fall thinning sprays because of potential frost damage -- do we have any of that? (I have seen some ‘funny’ stuff on apples, so am somewhat concerned.) This may be a short Healthy Fruit, because the verdict is still out. Disease-wise, there were a couple minor scab infection periods last week, but based on the weather forecasts, I presume everyone was pretty well covered up. Fire blight was a non-issue. The forecast does indicate a wet period coming up towards the end of the week, so given the fact we are still in primary scab season, be prepared to cover up again. Other petal fall spray considerations include Sevin + NAA for thinning (Sevin will give early control of curculio, see Guest Article *THE PETALS DON’T FALL FAR FROM THE TREE*) and Apogee for shoot growth control (see Guest Article *APOGEE TIPS FOR APPLE PRODUCTION FOR 2008*). Note that the 2008 New England Tree Fruit Production Guide also has an excellent section on ‘Growth Regulator Use in Apples,’ including specific variety recommendations for thinning and Apogee use for growth control. Finally, be sure to mark your calendars for next week’s Twilight Meetings on Tuesday, Wednesday, and Thursday evenings.

J. Clements.

Guest article: THE PETALS DON’T FALL FAR FROM THE TREE, Plum Curculio

Art Agnello, reprinted from Scaffolds Fruit Journal, May 12, 2008, <http://www.nysaes.cornell.edu/ent/scaffolds/>

Plum Curculio adults move into orchards from overwintering sites in hedgerows or the edges of woods and adults are active when temperatures exceed 60 F. Adult females oviposit in fruit during both day and night but feed mostly at night. Depending on temperature, overwintering adults remain active for 2–6 weeks after petal fall. Because adults are not highly mobile, orchards near overwintering sites, woodlands, and hedgerows are most susceptible to attack. Fruit damage is usually most common in border rows next to sites where adults overwinter. Although initial post-bloom sprays for plum curculio control should begin at petal fall, growers are often unsure how many additional sprays will be necessary to maintain protective chemical residues to prevent subsequent damage throughout the PC oviposition cycle, which varies according to temperatures and weather patterns after petal fall.

Following from the fact that PC activity and oviposition are largely determined by temperature, we use an oviposition model to determine when control sprays after petal fall are no longer necessary to protect fruit from PC damage. This model is based on the assumption that residues from control sprays after petal fall need to be maintained on fruit and foliage only until PC adults stop immigrating into orchards, which corresponds to the time when about 40% of the oviposition cycle is complete. This is predicted by the model to occur at 308 DD (base 50 F.) after petal fall of McIntosh. Most probably, this strategy works because, after 40% of PC oviposition is complete, adults usually are not moving into the orchard from outside sources, or moving around within orchards from tree to tree. Therefore, by this time, adults residing in treated trees have already been killed by insecticide residues and are unable to complete the remainder of their normal oviposition cycle.

In order to use this strategy: (1) Treat the entire orchard at petal fall with a broad spectrum insecticide. (2) Start calculating the accumulation of DD after petal fall of Macs (base 50 F.). (3) No additional sprays are necessary whenever the date of accumulation of 308 DD falls within 10–14 days after a previous spray. We’ll attempt to give local updates for the major fruit areas as the post-PF period progresses. In cherries and other stone fruits that are already at shuck fall, sprays should start (or should have started, as appropriate) at the first opportunity. Recall that, in addition to previously labeled products, some recent registration decisions have resulted in some additional choices you may

want to consider this season: Lorsban 75WG can be used at petal fall in apples (as well as tart cherries), Calypso is effective for plum curculio in apples and pears, and Avaunt is now labeled in stone fruit as another PC option.

Bear in mind that, owing to the warmer temperatures we saw in late April, PC adults (and for that matter, also European apple sawfly, below) are likely to be in most orchards already and waiting for the appearance of suitable fruitlets to attack. This will underscore the importance of timely petal fall applications, which may be more complicated in mixed variety plantings.

Guest article: APOGEE TIPS FOR APPLE PRODUCTION 2008

Win Cowgill, County Agricultural Agent, Rutgers Cooperative Extension, reprinted from Rutgers Plant & Pest Advisory, Fruit Edition, April 29, 2008

Labeled rates of Apogee are 3-12 ounces/100 gallons dilute spray. We do know that the higher rates of Apogee have caused some fruit set issues, primarily variability in set. In some cultivars it increases fruit set, in some it reduces set. Based on the consensus of research the last three years we are recommending utilizing multiple applications of the lower rate, i.e. three ounces/100gallons

Our suggestion is make four applications of the 3 ounce rate. Begin at 1-3 inches of growth (bloom-petal fall), and repeat at two week intervals.

- More vigorous varieties in North may need a fifth application as may orchards located in Southern NJ where the growing season is longer.
- Water Conditioner – Always use a water conditioner, Ammonium Sulfate (AMS)@ one pound/100 gallons – use spray grade AMS
- Adjuvant – always use a non ionic surfactant to improve leaf coverage

Do not use Apogee on Empire!

- Do not use with Boron or Calcium, reduced efficacy may result
- Be aware of the mixing order when combining with other chemicals, consult the label
- Do a jar test of materials before combing in the tank, consult the label
- Apogee is rainfast 8 hours after application
- Note that Apogee should not be applied the same season with PGR's that contain Gibberellic Acids, these include Provide and Promalin. They may interact and prevent one another from working effectively.
- The label is the law, follow it!

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MAY Fruit Twilight Meetings

Program for all meetings:

- 5:30 PM Farm tour including update on phenology and current pest status.
6:30 PM Speaking program will include updates of current cultural practices and integrated pest management approaches.

*Pesticide-license recertification credit (2 hours) will be offered at all meetings.
You must be there on time to receive pesticide credits.
\$20 per person registration fee. Light refreshments are typically served.*

TUESDAY, May 20

UMass Cold Spring Orchard

391 Sabin St., Belchertown, MA (413-323-6647, www.coldspringorchard.com)

DIRECTIONS: From Belchertown Center, proceed on Route 181 toward Palmer for about 2 miles, bear left onto Cold Spring Road. In about 0.5 miles, bear left onto Sabin Street. Orchard is immediately on the left. From the Route 9/Route 202 intersection, take Route 9 East for about 2.5 miles, and turn right onto Sabin Street. In approximately 1.75 miles orchard on the right.

WEDNESDAY, May 21

Kimball Fruit Farm

184 Hollis St., Pepperell, MA (978-433-9751)

DIRECTIONS: From I-495: take exit 31 for Rt. 119 toward Acton/Groton. Past village of Groton take a right onto Rt. 111 (River Rd.). In village of Pepperell at the traffic circle, take the 2nd exit onto Hollis St./Rt. 111. Continue app. 2.5 miles on Hollis St. (becomes Rt. 122) to orchard on left.

THURSDAY, May 22

Noquochoke Orchard

594 Drift Rd., Westport, MA (508-636-2237, <http://www.noqorchards.com/>)

DIRECTIONS: From I-95: Take exit 10 onto Route 88 (Horseneck Beach). Turn left at the third traffic light onto Charlotte White Road. At the end, turn right onto Drift Road. Proceed for about 1/4 mile to Noquochoke Orchards. The entrance will be on your left with the Farm Stand on the right.

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