UMassAmherst EXTENSION

Healthy Fruit

Volume 13, 2005

Prepared by the University of Massachusetts Fruit Team

Issue 10, June 07, 2005

Current DD Accumulations

Location	Base 32F	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/05 – 06/06/05)	--	732	381
Belchertown, SkyBit E-Weather (01/01/05 – 06/06/05)	--	692	--
Belchertown, UMass CSO observed (05/19/05 – 06/06/05)		--	203*

*308 Degree Days (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 14	Fruit Team Twilight Meeting	UMass Cold Spring Orchard 391 Sabin Street Belchertown, MA	5:30 PM	Jon Clements 413-478-7219
June 15	Fruit Team Twilight Meeting (with UNH Extension)	High Hopes Orchard 582 Glebe Road Keene, NH	5:30 PM	Jon Clements 413-478-7219 George Hamilton 603-641-6060
June 16	Fruit Team Twilight Meeting (with URI Extension)	Sweet Berry Farm 19 Third Beach Road Middletown, RI	5:30 PM	Jon Clements 413-478-7219 Heather Faubert 401-874-2750
June 16	Grape Grower Twilight Meeting	Nashoba Valley Winery Wattaquadoc Hill Road Bolton, MA	4:00 PM	Sonia Schloemann 413-545-4347
July 18	Massachusetts Fruit Growers' Association Summer Meeting	Nicewicz Farm 116 Sawyer Road Bolton, MA	TBA	Jon Clements 413-478-7219

The way I see it

Now that it has really warmed up, keep a close eye on insect pests as they may be a little delayed, but will certainly respond to the heat. Curculio is certainly the main concern, and ongoing curculio sprays will suppress many other pests. Heat and dry weather has pretty much put an end to primary scab, but orchards with sensitivity to fireblight should be prepared to apply streptomycin if we get a 'trauma' event with rain, wind, and/or hail. This week will likely be the last week for a traditional thinning application. Keep in mind the heat may lead to 'excessive' thinning. Finally, a full palette of twilight meetings next week should offer something for everyone – hope to see you there. J. Clements

Fruit meetings next week

Four fruit 'twilight' meetings next week should offer the opportunity to learn something new and get pesticide recertification credit for everyone. First, on Tuesday, a twilight meeting will follow a special presentation acknowledging significant contributions to the UMass Cold Spring Orchard. You are invited to join the ceremony and have some BBQ before the orchard tour and indoor program. On Wednesday, we will meet with New Hampshire Fruit Growers' Association up near Keene at High Hopes Orchard. High Hopes has become a diversified 'agri-tainment' destination in the fall. 2.5 pesticide recertification credits for all attendees will be offered. On Thursday, you have a choice – a grape growers meeting at Nashoba Valley Winery in Bolton will feature sprayer technology and trellis construction, or an apple growers meeting near beautiful Newport, Rhode Island at a newly finished post-and-beam diversified farm stand. This is truly a unique set of meetings – all should be both educational and enjoyable. Please see enclosed meeting notice(s) for details.

Entomology

Curculio should be active this week with the warm temperatures, humidity, and 'pop-up' thundershowers predicted for this week. Maintain good insecticide coverage for the next week at least. We have only accumulated just over 200 DD's (Base 50) since petal-fall in Belchertown, although it will start increasing rapidly now (with the hear) towards the threshold of 308 DD's, when insecticide coverage for curculio is no longer needed.

Now is the time to deploy mating disruption for **greater and lesser peach tree borers**. Isomate-L ties (Great Lakes IPM, 800-235-0825) hung at a rate of 100-150 per acre will control both species. The alternative is to apply a trunk spray of Lorsban 4E for greater peach tree borer (trunk spray only, do not contact foliage or fruit) and/or a pyrethroid (Asana, Ambush, Warrior, Pounce) to scaffolds for lesser peach tree borer. A trunk spray of Lorsban 4E for **dogwood borers** in apples – particularly to dwarf trees that form burr-knots – is also recommended at this time.

Horticulture

Many growers may have applied the last of their thinning sprays by now. Anything applied last week will start to show results this week, especially with the warm weather. Monitor fruit growth closely to determine the need for an additional thinning spray this week. If an excessive number of fruit are still growing by the middle to end of this week, then another chemical thinning application may be necessary. Fruit size is in the 10-15 mm range, so this is the last week for traditional thinning. Heat can result in excessive thinning, so tread carefully if you determine the need for another thinning application. NAA is not a good choice at this time, especially with the heat. BA (Maxcel, Exilis Plus) at lower rates and/or carbaryl are better choices for thinning at

this time. It bears repeating that warm to hot temperatures following a chemical thinning application can result in excessive thinning, so be careful out there.

You should start incorporating calcium into cover sprays now. Please see Factsheet F-119R 'Foliar Calcium Sprays for Apples' for details and caveats on foliar calcium applications. Below is an excerpt from the publication with application details. We cannot overstate the importance of calcium for fruit quality and storability.

Materials

A number of Ca-containing chemicals are available for foliar treatment. **All are equally effective if applied at the same amount of actual Ca per 100 gallons.** Ca chloride (CaCl2) is the most often recommended, because it is the cheapest source of Ca. Ca nitrate {Ca(NO3)2} also may be used, but 1.6 times as much Ca(NO3)2 as CaCl2 is required to apply the same amount of Ca. The commercial material, StopitTM, also provides Ca in a foliar spray, and one pound of CaCl2 is equivalent to approximately 1.8 quarts of StopitTM. Please note that in some cases, such as with StopitTM and other commercial materials, label rates will not provide equivalent amounts of Ca as obtained from the recommended amount of CaCl2.

Treatments

Begin foliar sprays three weeks after petal fall and continue at two-week intervals, if possible, until harvest. Eight foliar sprays ideally should be applied before the fruit are harvested. The rates and timings can be adjusted somewhat, but attempt to apply the equivalent amount of Ca per year. Technical grade CaCl2 (~79% actual CaCl2, ~29% actual Ca) should be applied at the rate of 2.0 to 2.7 pounds per 100 gallons dilute until mid-July and at the rate of 2.7 to 3.3 pounds per 100 gallons dilute after mid-July. CaCl2 increases the pH of the spray solution, so 2/3 ounce of vinegar (5 %) should be added per pound of CaCl2. The addition of a surfactant may reduce the potential for leaf injury and increase uptake. *Leaf injury may be enhanced by the addition of captan or guthion to the CaCl2 spray, but most pesticides are compatible with CaCl2. Do not, however, mix CaCl2 with SoluborTM.* Soluble, granular Ca(NO3)2 {79% actual Ca(NO3)2, 19% actual Ca} may be substituted for CaCl2 but must be applied at the rate of 3.2 to 4.3 pounds per 100 gallons dilute until mid-July and at the rate of 4.3 to 5.3 pounds per 100 gallons dilute after mid-July. Since Ca(NO3)2 does not raise the pH of the spray solution, vinegar is not required. We have tested Ca(NO3)2 only on McIntosh, and have experienced no fruit injury; however, there are reports that Ca(NO3)2 causes fruit spotting on Delicious and Golden Delicious. We have measured no increase in leaf nitrogen levels from the recommended dosage of Ca(NO3)2, and therefore expect no reduction in red coloration.

Diseases

Just a quick note to be ready in case we get a **fireblight** 'trauma' event such as high wind in combination with rain or hail. The weather forecast is favorable, and we have had enough heat to build up bacteria in orchards with a history of fireblight. A streptomycin spray must be applied within 24 hours of the trauma event – timing is critical as it will do no good if applied too late. Orchards on dwarf rootstocks with susceptible cultivars (Gala, Gingergold, Honeycrisp) are particularly susceptible and should be treated if the weather is such that foliage is torn or damaged.