



Healthy Fruit

Volume 10, 2002

Prepared by the University of Massachusetts Fruit Team

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Current DD Accumulations

Location	32	43	50
Belchertown UMass Cold Spring Orchard (CSO) (01/01/02 – 04/015/02)	-	179	66
(04/04/02 – 04/15/02, 04/04 Green Tip date)	201	-	-

Current Bud Stages

Location	McIntosh Apple	Gala Apple	Pear	Peach	Sweet Cherry	Plum
Belchertown UMass CSO (04/15/02)	Early Tight- Cluster	Tight Cluster	Bud Burst +	Early Pink +	Early Bud Burst	White Bud +

Crop Insurance Deadline Looming

The USDA Non-insured Crop Disaster Assistance Program (NAP) deadline for 2002 is April 18th. Eligible crops include stone fruit, pears, small fruit and, in some cases, apples. NAP coverage requires a service fee of only \$100 per crop, per producer, but you must do the paperwork by this Thursday! Call your local FSA office now for more information.

Bump 'em Up with Foliar Nutrients

Warm weather has accelerated bud development, and speaking of fruit buds, there appears to be a lot of them across the region. (Thanks 2001 for light to moderate crops and a favorable growing season.) These conditions can put a lot of early stress on the trees, so a pre-bloom foliar nutrient application is suggested. Nitrogen, boron, and zinc are the nutrients of choice at this time, and a tight-cluster application of all three is ideal:

- < Urea, spray grade, at 3 lbs. per 100 gallons
- < Solubor, 1 lb. per 100 gallons, or other sources @ 0.1 – 0.2 lbs. Actual B per acre
- < and EDTA zinc chelate at label rates

Development stages range from early tight cluster in warmer areas to quarter inch green in later areas. NOAA Weather Radio forecasts unusually warm weather over the next few days with a return to more seasonal temperatures later in the week. Tree development and pest activity can be expected to move rapidly if temperatures reach into the 80's.

Tarnished Plant Bug:

Captures were up to 1 per trap in some orchards which have experienced chronic plant bug problems in the past, perhaps indicating that this year will be more similar to last year than to the previous several years. Watch those traps! The threshold is 3 per trap for wholesale orchards and 5 per trap for retail orchards. Early-season plant bug damage is more likely to result in bud abscission, whereas later damage results in the characteristic "sting" injury. Guthion, Imidan, Actara, and the pyrethroids are effective on tarnished plant bug. As always, the effectiveness of the pyrethroids must be balanced against their negative effects on beneficials; these materials are broad-spectrum and long-lasting, and may impact not only mite populations, but also aphids, especially woolly aphid populations.

Aphids:

Two species of aphid may be present in apple orchards at this time of year, only one of which is damaging - rosy apple aphid ; and the other, apple grain aphid is non-damaging and is actually somewhat helpful in that it may attract syrphid flies to lay their eggs in the orchard. Rosy aphid infestations are fairly uncommon in this area but may be devastating to certain varieties when they do occur. Monitor fruit clusters on Cortland, IdaRed, Golden Delicious, Gravenstein and Jonagold, and plan to treat if more than 1 of 100 clusters examined has rosy aphids. The best way to distinguish rosy apple aphids from other aphid species is the presence of noticeable (under a handlens) cornicles ("little horns") at the tail end of the insect. These are evident on both immatures and adults. Apple grain aphids, on close examination, show a striation of dark and lighter green laterally along the body. Lorsban, endosulfan, and Esteem will help control rosies at this time, or Provado at petal fall is also effective.

Mites and San Jose Scale:

This week will be a good time for the first oil spray in most areas. Last week we said that there was no additional benefit for San Jose scale control to including Lorsban in the tank; this has been a long-standing recommendation, but recent research does suggest that the inclusion of Lorsban may in fact be useful. Lorsban does have very good penetration and retention when applied to bark, and while it may not enhance the action of the oil spray right now, there may be enough material retained to help suppress the crawlers when they emerge in June.

Leafminers:

Activity has been minimal so far but is likely to increase with the warmer, less windy weather. Watch those traps!

Restricted Entry Interval (REI): At one of last weeks twilight meetings, a question was raised concerning REI's. The REI is the time period when workers can reenter pesticide treated areas without protective clothing. The discussion centered on the EPA proposal to increase the REI to 14 days for azinphosmethyl, and whether any grower would use azinphosmethyl if this REI becomes final. It is worth noting, that according to the EPA web site (<http://www.epa.gov/oppfead1/safety/workers/limited.htm>) "In 1995, EPA completed an exception to the Worker Protection Standard (WPS) that would allow, under specified conditions, workers to enter pesticide treated

areas during a restricted entry interval (REI) to perform tasks that involve limited contact with pesticide treated surfaces."

"This exception allows workers the flexibility during an REI to perform limited contact tasks that could not have been foreseen and which, if delayed, could cause significant economic loss." It seems that possible examples of allowed reasons to enter could include: a tractor or truck stuck or broken down in a partially treated block, an unanticipated need to irrigate the crop, or an unanticipated need to mow grass in the area when delaying the mowing would cause significant economic loss.

The final action on this issue cited specific conditions for this exception: The worker's contact with treated surfaces is minimal and is limited to the feet, lower legs, hands and forearms; the pesticide does not have a label statement requiring workers to be notified both verbally and by posting; personal protective equipment (PPE) is provided to the worker, and must conform to the label requirements or at least include coveralls, chemical resistant gloves, socks, chemical resistant footwear and (if the label requires it) eyewear; no hand labor (such as hoeing, picking, pruning, etc.) is performed; the time in treated areas under an REI for any worker may not exceed 8 hours in any 24 hour period; the workers do not enter the area during the first 4 hours, and until application ventilation criteria have been met, and until any label specified inhalation exposure level has been reached; and, workers are given oral or written notification of the specifics of the exception to early entry in a language that the workers understand.

Thanks to Andrea Szylvian of Region I EPA for her help in locating this information.

Scab Ascospore Maturity and Infection Periods

Arthur Tuttle, UMASS Microbiology and Robin Spitko, New England Fruit Consultants

Apple leaves from abandoned trees were collected from sites in Littleton and Amherst, MA on April 15 and 16. Squash mounts showed that approximately 5% of the ascospores from both sites were mature, and none of them had been released yet. We have not had an infection period yet, but the recent rain and warm weather will speed apple tissue and ascospore growth quite a bit. Growers would be wise to be ready with a spray application before or immediately after the next significant rain, especially in blocks that had scab last year or are close to inoculum sources.