



Issue 7, May 4, 2004

### Current DD accumulations

Location	Base 32 F	Base 43 F	Base 50 F
Belchertown, UMass CSO observed (01/01/04 – 05/03/04)	--	403	227
Belchertown, SkyBit E-Weather (01/01/04 – 05/03/04)	--	305	--
Belchertown, UMass CSO observed (04/13/04 – 05/03/04)	444 (49*)	--	--
Belchertown, SkyBit E-Weather (04/13/04– 05/03/04)	-- (12*)	--	--

\* % mature scab spores

### Current bud stages

Location	McIntosh apple	Honeycrisp apple	Pear	Peach	Cavalier sweet cherry
Belchertown UMass CSO (05/03/04)					
	pink	early pink	white bud	bloom	bloom

Current bud stages also available on UMass Fruit Advisor, <http://www.umass.edu/fruitadvisor/>

### Upcoming meetings/events

Date	Meeting/Event	Location	Time	Information
May 11	Fruit Twilight Meeting	UMass Cold Spring Orchard, Belchertown, MA	5:30 P.M.	Jon Clements 413-478-7219
May 12	Fruit Twilight Meeting	Highland Farm, Holliston, MA	5:30 P.M.	Jon Clements 413-478-7219
May 25	New Hampshire Fruit Twilight Meeting	Gould Hill Orchard, Contoocook, NH	5:00 P.M.	George Hamilton 603-641-6060

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## Insects

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**Tarnished plant bugs** are still a concern where they are numerous or there is a history of problems with this pest. A pink spray with a pyrethroid will give the most viable control, however, Guthion or Imidan are also options.

**Leafminers** have reached threshold levels in some orchards based on trap captures. But, it's not necessary to treat now – it's best to wait until larval populations (sap mines) are numerous seven to ten days after petal-fall. Cool, wet weather during bloom will significantly reduce egg-laying activity by leafminer adults.

**Plum curculio** have immigrated (three times) into orchards in significant numbers with the recent warm, humid weather. A temptation is to treat now, at pink, however, experience dictates that a petal-fall spray of Sevin XLR for thinning followed by Guthion or Imidan before fruitlets reach 6 mm size is very effective. Curculio do not significantly bother the fruit until they reach 6 mm size or above – this is when you want to be covered for sure.

There has been some activity by various early bud-feeding worms (**pug moth, cankerworm, red-banded leafroller**) in at least one western orchard. The problem has been taken care of by a 1/8 to 1/4 rate of Imidan. These worms are very small and difficult to observe, but left unchecked, can do considerable damage to fruit buds.

It's been brought to our attention that in the 2004 March Message we inadvertently grouped the new insecticide **Assail** (Cerexagri, Inc.) with Provado in terms of high bee toxicity. In fact, Assail is far less toxic to bees than Provado, and may even be used during bloom. (Although it cannot be used when bees are actively foraging. See the label for specifics.) Assail has proven effective on rosy apple aphid and sawfly (among others), and to a lesser extent plant bug and curculio.

Also, note that **Calypso** has not yet received registration in Massachusetts for 2004. We look forward to having it in 2005.

## Diseases

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**Fireblight** becomes an issue now as bloom approaches. Susceptible cultivars (Braeburn, Fuji, Gala, Ginger Gold, Honeycrisp, Paulared) and rootstocks (M.9, M26) should be covered with streptomycin if warm weather (65 F. or greater) precedes and coincides with bloom and any rain is predicted. Streptomycin must be applied within 24 hours (either side) of the wetting period to work.

There have been three important **apple scab** infection periods to date at the UMass Cold Spring Orchard – April 23-24; 26-27; and May 2-3, the current wetting period. By far, this latest one has been the most important, as spore maturity has accelerated. Your orchard should have been covered with a protectant fungicide before this most recent wetting event. If not, or if you think coverage was weak, you need to get back out there ASAP with another fungicide spray that should include either an SI (Nova, Rubigan, Procure) or strobilurin (Flint, Sovran, Vanguard). Now is the greatest risk for contracting primary scab if adequate fungicide coverage is not maintained!

Young, non-bearing orchards are often neglected when the focus is on controlling primary scab in bearing orchards. Don't do it! Scab and particularly **mildew** can reduce growth and compromise tree health. Be sure to cover young trees with a pink, bloom, and petal-fall (more-or-less) fungicide spray containing a protectant and SI (for mildew) fungicide.

**Brown rot** (blossom blight) is a concern in stone fruit during bloom, particularly when the temperatures are warm (70 F) with rain. A bloom spray with a good brown rot fungicide – Indar, Bravo, Nova, Orbit, Elite is advised if these conditions persist during bloom.

## Horticulture

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**Maxcel** (Valent Biosciences) has received state registration and will be available for apple fruit thinning in 2004. Maxcel replaces Accel, and although it uses the same active ingredient as Accel (6-BA), the gibberellins have been removed and the usage concentration has been increased. Research trials have shown Maxcel to be a moderately powerful fruit thinner and size enhancer. More on Maxcel in an upcoming Healthy Fruit.

A pink **micronutrient spray** of urea, boron, and zinc on apples may improve fruit set. A spray solution of 3 lb. urea, 1 lb. Solubor, and 1 lb. EDTA zinc chelate is the recommendation.

**Apogee** must be applied when new shoot growth is 1-3 inches (often at petal-fall) for effective growth control. Some years, the window for the first Apogee application is rather narrow, so be prepared. For details on Apogee see F-127R Apogee – a New Growth Retardant for Apples (<http://www.umass.edu/fruitadvisor/factsheets/factsheets.html>).

Ground-applied **nitrogen** fertilizer should be on by now or soon. Mature bearing orchards on semi-dwarf or dwarf rootstocks require application of 0-60 lbs. actual nitrogen annually, the amount, of course, depending on many factors. A leaf analysis and observation of growth are the best gauges for determining the amount of nitrogen to apply. For more information see the Fact Sheet F-124 Nutrient Recommendations for Apples (<http://www.umass.edu/fruitadvisor/factsheets/factsheets.html>). Also, the most recent NYS Fruit Quarterly (Spring 2004, <http://www.nysaes.cornell.edu/hort/fq/>) is devoted to ‘mineral nutrition in the modern orchard’ and is an excellent resource.



‘King’ bloom open on Ginger Gold apple, 05/03/2004  
UMass Cold Spring Orchard, Belchertown, MA  
Bees should be settled in the orchard when king bloom is open!