Volume 14, 2006

UMassAmherst EXTENSION

Healthy Fruit

Prepared by the University of Massachusetts Fruit Program

Healthy Fruit, Issue 3, April 18, 2006

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

Current DD accumulations

	Base 32F	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/06 – 04/10/06)		211	87
Belchertown, UMass CSO SkyBit (01/01/06 – 04/10/06)		202	
Belchertown, UMass CSO observed (04/10/06 [GT] – 04/17/06)	169 [6]*		

*[6] = % mature apple scab spores

Current bud stages

Location	McIntosh apple	Honeycrisp apple	Pear	Redhaven peach	Cavalier sweet cherry
Belchertown, UMass CSO (04/017/06)	 early tight cluster	 early tight cluster	 early bud burst	 half inch green	 bud burst

Upcoming meetings/events

Date	Meeting/ event	Location	Time	Information
April 22	Pesticide Disposal Event	Smith Vocational School Northampton, MA		413-587-1059
May 9, 10, 11	Fruit Team Twilight Meeting	TBA	5:30 PM	Jon Clements 413-478-7219

Lorsban 75WG -- New product, new supplemental labels

Lorsban 75WG is a new formulation of Lorsban from Gowan, Inc. Use is similar to Lorsban 4E, however, it may be preferable because of it's low odor compared to the 4E formulation. Lorsban 75WG has supplemental label(s) for use on apples -- one as a post-bloom, trunk-only spray for borer control, and the second for a delayed-dormant (through petal-fall) whole tree spray for various pests. Uses of both Lorsban products are summarized in the Table below. The addition of oil to the 75WG formulation is recommended in some applications to improve efficacy. As always, consult the (supplemental) labels for details and more information.

Crops and timing of Lorsban sprays			
	Dormant/delayed dormant (pre-bloom)[1]	*Foliar (post-bloom)*[2]	*Trunk only*[3] *(generally post-bloom)*
Lorsban 4E (Dow)	apple, pear, peach, nectarine, plum, cherry		peach, nectarine, cherry; apple[4]
Lorsban 75WG (Gowan)	apple[5], peach, nectarine, plum, cherry	cherry (sour)	peach, nectarine, cherry; apple[4]

[1]target pests include mites, scale, oblique-banded leafroller, pearl psylla, peach twig borer

[2]target pests include borer, scale, leafrollers

[3]target pests include american plum borer (cherry); peach tree borers (peach, nectarine, cherry); and dogwood borer, apple bark borer, roundheaded apple tree borer, etc. (apple)

[4]supplemental label for apple

[5]supplemental label for some apple pests and allows application at petal-fall

Forsythia bloom = time for pre-emergent herbicide application

Now is the time to apply pre-emergent herbicides to bare ground tree row strips. Pre-emergent herbicides are an important component of season-long control of weeds. Remember, weeds compete with trees for nutrients and water, are hosts for injurious insects/nematodes, and attract pollinating insects at the expense of flowers in the trees. The recommended program is to apply a fall tank mix of a pre-emergent and contact herbicide(s), followed by a spring herbicide application. Material selection for the spring application depends on weeds present (or expected to be present), but usually includes herbicides with pre-emergent activity on both grasses and broadleaf weeds, along with a contact herbicide if above-ground weed growth has already started. Karmex 80WP and Sinbar 80WP (or Surflan 80WP) along with 2,4-D or Roundup are good choices for the spring application in established apple or peach orchards. (Shield peach trees from Roundup sprays, or use Gramoxone).

It's also extremely important to control weeds in new plantings. Although there are several options for new plantings -- including Devrinol, Gallery, Surflan, etc. – Chateau (Valent Biosciences) is a new herbicide that is effective on both grasses and broadleaf weeds with a good margin of crop safety. As with any herbicide application, strict rate control (calibration) is necessary.

Win Cowgill -- UMass Fruit Team visiting scholar

Win Cowgill

Win Cowgill is working with our fruit team at UMASS this spring while on a sabbatical study leave. Win has been an area fruit agent and Professor at Rutgers, the State University, in New Jersey for the past 28 years. He has worked extensively with apple and peach production systems, rootstock and variety trials and plant growth regulators for fruit growers. He has also conducted extensive pumpkin and tomato disease control trials with emphasis on developing a tomato disease forecasting system and lower cost spray schedules for pumpkin production.

Win is the co-founder of the Virtual Orchard website and the apple-crop list serve with Jon Clements. http://www.VirtualOrchard.net and http://www.virtualorchard.net/applecrop.html

While at UMASS Win is working with Wes Autio on managing top growth control in high density orchards and several other projects. He participated in our twilight fruit meeting series last week demonstrating peach pruning techniques and will be working with us on our next series of twilight meetings coming up in May.

Win can be reached at his email address at <cowgill@rcre.rutgers.edu>

Healthy Fruit Disease Elements – D Cooley

Too late for fire blight and bacterial spot inoculum? For the past couple of weeks the topic has been reducing scab inoculum with leaf shredding and urea. This idea of reducing inoculum works with most tree fruit diseases, including major bacterial problems such as fire blight on apples or pears, and bacterial spot on peaches. Copper came up, but as a dormant spray. The standard advice is that anything after half-inch green gets risky, because it causes phytotoxicity. Given that we are into tight cluster in apples and half-inch green on peaches, then we should be done talking about copper this year. (Bud stages at CSO: http://www.umass.edu/fruitadvisor/clements/2006budstages/041706/041706.html)

Except where there were big problems with fire blight or chronic problems with bacterial spot. Or in places where organic producers are looking to the few fungicide options available to them. Where fire blight or bacterial spot hit last year, getting rid of early-season inoculum may outweigh the problems of fruit russet and leaf scorch that copper can cause. At this time of year in those blocks, the choice is often between the lesser of two evils: disease or phytotoxicity.

On the disease control side, these applications, applied over the whole tree at a relatively dilute rate will keep down bacterial growth. This will reduce the chances that disease will explode later when the temperature and rain are just right for bacterial growth. Fire blight first appears at bloom, and bacterial spot after peach bloom, but the most dangerous inoculum is the bacteria that are in the orchard now.

On the phytotoxicity side of the scale, no doubt, copper applied to apples after half-inch green at a full rate (2 lbs. metallic copper per acre) will cause some damage, most likely russet. It may also stress cluster leaves, leading to some extra fruit drop later. On peaches after bud-break, copper rates should be cut in half. There's still a risk of leaf scorch at these rates.

While we're talking about copper, it's worth noting that EPA is reviewing it's use in fruit and vegetable crops right now. The primary concern is with short-term toxicity to some animals in water, and long-term build-up of a heavy-metal in soils. It's likely that EPA will limit copper use, perhaps even eliminating it in orchards where soil levels of copper are high.

So, am I recommending that everyone go out and spray some copper on their fruit trees right now? No way! But, in situations where your disease problems outweigh the problems of russet and mild leaf damage, copper can still help you out.

Scab risk. At the Cold Spring Orchard, we're moving into serious levels of scab inoculum, above 5% matured. Tissue is out, and continuing to grow. By the end of the week, the risk of scab infections during rain will be high around the state.

Last weekend, we had a light infection period at CSO. (http://www.umass.edu/fruitadvisor/hrcweather/2006/applescab.txt)