



UMassAmherst Outreach UMass Extension

Healthy Fruit

Volume 15, 2007

Prepared by the University of Massachusetts Fruit Program

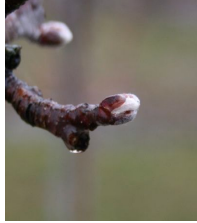

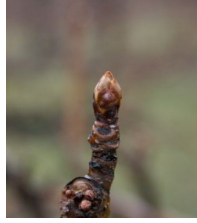
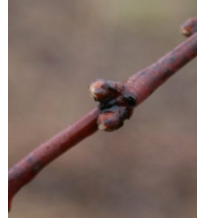
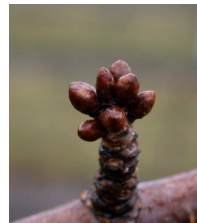
Healthy Fruit, Issue 3, April 17, 2007

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

Current DD accumulations

Location	Base 43F	Base 50F
Belchertown, UMass CSO observed (01/01/07 – 04/17/07)	145	51
Belchertown, UMass CSO SkyBit (01/01/07 – 04/17/07)	85	NA

Current bud stages

Location	McIntosh apple	Honeycrisp apple	Bartlett Pear	Redhaven peach	Cavalier sweet cherry
Belchertown, UMass CSO (04/17/07)					
	silver tip	early silver tip	swollen bud	swollen bud	early swollen bud

More bud stages at: <http://www.umass.edu/fruitadvisor/clements/2007budstages/041707/041707.html>

Upcoming meetings/events

Date	Meeting/event	Location	Time	Information
May 15	Fruit Team Twilight Meeting	UMass Cold Spring Orchard , 391 Sabin St., Belchertown MA	5:30 PM	Jon Clements 413-478-7219
May 16	Fruit Team Twilight Meeting*	Brookdale Fruit Farm , 36 Broad St., Hollis, NH	5:15 PM	George Hamilton 603-641-6060
May 17	Fruit Team Twilight Meeting*	TBA , somewhere in Rhode Island	5:30 PM	Jon Clements 413-478-7219

Pesticide re-certification credits offered at each Fruit Team Twilight meeting. Please be on time to receive credit

* In cooperation with New Hampshire Fruit Growers' Assoc. and UNH Cooperative Extension

** In cooperation with Rhode Island Fruit Growers' Assoc.

The way I see it

Not much has changed since last week (see Current Bud Stages) given the weather. The forecast does call for warm temperatures and sun this weekend, however, so be prepared as buds will move rapidly. You will need to have a protectant scab spray on before the next rain event if green tissue is out there.

If you missed last week's series of Fruit Team Twilight Meetings, you missed Dan Cooley's presentation on the fact we likely have scab that is resistant to the SI fungicides -- Nova, Rubigan, Procure, etc. -- in some Massachusetts orchards. If your pattern of fungicide use has included several annual sprays with SI's (even when tank mixed with protectant fungicides) over the past 10 to 15 years, you may very well have SI-resistant scab. That means it may be pretty 'fruitless' using SI's, and you need to rethink your scab control program to rely more on timely protection (pre-infection) fungicides such as Captan, Syllit, the EBDC's, Flint, Vanguard, etc. But of course this pre-infection scab control strategy has also been a recurring theme in Dan Cooley's HF 'Disease Elements' articles in the past year or so.

Given this situation, you may be wondering about the fact there are two relatively new fungicides labeled for apple scab in 2007, Pristine and Indar. Indar is an SI fungicide with similar kick-back to Nova/Rubigan (up to 4 days), however, if you have strong resistance to SI's, Indar will be in the same category, i.e. not good. But, Indar may be a good substitute for Nova/Rubigan etc. where you are on-the-fence and don't know for sure the status of SI-resistance in your orchard. In other words, it is probably worth incorporating in a post-infection scenario where you have no other good options vs. the continued use of 'old' SI's. (No warranty expressed or implied, but think about it.) Pristine has modest efficacy on scab, and is quite expensive. Save it for summer diseases where it has much better efficacy.

You also missed a comprehensive presentation by Wes Autio on orchard nutrition. Fortunately he has made his presentation available on the UMass Fruit Advisor and I urge you to review it.

- <http://www.umass.edu/fruitadvisor/factsheets/nutrients2007.pdf>

Finally there has been much discussion in the media and various newsletters about the honeybee situation with Colony Collapse Disorder (CCD). My impression is that it has most affected bee colonies/hives that are on the move a lot, and resident colonies in Massachusetts have seen fewer losses if any. Still, you'd best be in touch with your current supplier of honeybees for pollination, and see if they are likely to have a shortage of hives and/or imposing restrictions on their use. For example, some beekeepers (it's rumored) are asking that you don't use neonicotinoid insecticides during the period when their hives are in the orchard because it has been suggested they may be a contributing factor to CCD (although not proven). Neonics include Provado, Assail, Calypso, and Actara. We should all do our part and use insecticides judiciously and according to label directions, including "do not spray when bees are in the orchard." Interestingly, GMO's and cell phone use have also been attributed to CCD, however, as is the case with the neonics, there is no firm evidence to support such theories.

- <http://www.nysaes.cornell.edu/ent/scaffolds/2007/070416.html#insect>
- http://en.wikipedia.org/wiki/Colony_collapse_disorder

J. Clements.

Timing and options for pre-emergent herbicide application

Forsythia bloom is a good signal that it is time to apply a spring pre-emergent herbicide to control annual broadleaf weeds and grasses in the orchard tree-row herbicide strips. Princep and Karmex have been traditional herbicides used to control grasses and broadleaf weeds respectively, however, their long-time use has led to patterns of resistance and/or control failure in some orchards. Two new pre-emergent herbicides, Chateau and Prowl H2O, are good options where weed control has been less than

desirable. (Besides, it is always good to rotate herbicides to help prevent or delay resistance.) Both can be used on bearing and non-bearing orchards, although Chateau currently has a supplemental label for bearing orchards. Be sure to follow label precautions when using on very young trees. For example, Chateau says to protect the trunks from contact with direct spray the year-of-planting.

A typical recommendation for use of an herbicide tank mix with these two new herbicides to control annual and emerged weeds in the spring would be a late-April to early May application of Chateau at 8 oz./acre, Prowl H2O at 4 qt./acre, and Gramoxone (+ surfactant) at 2-3 pt./acre. This should give very good season-long control of most weeds in the herbicide strip at a cost of about \$85-\$95 per sprayed acre. J. Clements.

VAPG grant application process starts with 30 day turnaround

In case you did not hear about this (received from Mass. Dept. of Ag. Resources), sounds like a good opportunity. J. Clements.

The much-anticipated Value-Added Producer Grant (VAPG) Notice of Solicitation of Applications (NOSA) is now available online at [VAPG NOSA Fed Reg Notice](#).

Due to delays in the FY 07 budget process, the NOSA has been released much later than usual, and the window for application turnaround is significantly shorter this year; with a deadline of May 16, applicants will only have 30 days to write and submit their proposal. USDA's Rural Business Cooperative Service has important guidance on eligibility criteria and the application process online at www.rurdev.usda.gov/rbs/coops/vadg.htm.

Created in the 2002 Farm Bill, the VAPG program provides planning or working capital grants to independent producers, agriculture producer groups, farmer and rancher cooperatives, and producer-controlled business ventures for projects promoting the production and marketing of value-added agricultural products and the creation of farm-based renewable energy. Planning grants are eligible for up to \$100,000, and working capital grants for a maximum of \$300,000. Matching funds at least equal to the grant requested are required, and must be documented as available either cash or in-kind upon application submission. To be considered "value-added," products must possess incremental value based on a change on the product's physical state, a differentiated means of production, or product segregation. To meet the one-year project completion requirement, all applications must request funds for a time period beginning October 1, 2007 and ending November 30, 2008.

This popular program is one of the few USDA initiatives providing direct assistance to producers for the adoption of sustainable agricultural production and marketing activities that ensure greater farmer retention of the food dollar and the creation of local economic opportunity.

Guest article: traps to monitor leafminers in apple, and when do I make a leafminer spray?

Alan Eaton, University of New Hampshire Cooperative Extension 'NH Integrated Pest Management Newsletter' http://extension.unh.edu/Agric/Docs/IPM07_2.pdf

Traps to Monitor Leafminers in Apple

Like tarnished plant bugs, populations of apple blotch/spotted tentiform leafminers vary greatly from block to block. They also vary widely year to year. There's a lot we don't understand about mortality of these insects in fall and winter. I'll just say it is really worthwhile to monitor for the insects, and red sticky rectangle traps are a very reliable method for that.

Set these traps out at the quarter inch green or half inch green bud stage. Then check them weekly for the small, elongate whitish moths, and write down the numbers of leafminers caught. Checking them weekly is important, because moths trapped longer than that

become black and very hard to identify. I squash them as I count, so I won't double-count or miss any. The photo shows you what the moths look like. Make your spray decision at tight cluster or pink stage. That tells *if* you need to spray. You have many choices about *when*. Take traps down after making your decision.

Threshold: For McIntosh, a cumulative average of 4 or more per trap (from silver tip through tight cluster) is enough to warrant control. If you leave the traps up through pink, the threshold is 9 or more per trap. McIntosh is very sensitive to leafminer injury, which is why the threshold is so low. **For all other varieties**, the figures are 8 moths (ST through TC) and 21 moths (ST through Pink).

If you plan on applying RETAIN to your McIntosh trees, you can use the same threshold as for the other varieties. Why? McIntosh often responds to LM injury by dropping its fruit, just as you are about to begin harvest. Retain counteracts this tendency, so we adjust the threshold accordingly.

When Do I make a Leafminer Spray on Apple?

This gets complicated. The trap tells us if the population is high enough to warrant spraying. We have many insecticides to use. Thiodan for instance is aimed at killing the adults, and a single spray aimed at ground cover and lower limbs in early spring (tight cluster stage) can be effective. Others (insect growth regulators like Esteem and Intrepid) should be applied when eggs or very young larvae are present (at pink stage). Vydate can cause fruit thinning, so if you used that, early pink would be the proper time. Still others (Provado, Agri-mek...) are aimed at the sap-feeding larvae. Depending on which option you take, the proper time to treat might be any time from tight cluster stage through mid-June.

If you do it correctly, one application should control the first generation. In my experience, it is rare to have to treat a second time in the season, if an insecticide for leafminers was properly applied.



*Leafminer adult on sticky trap
photo by J. Clements*

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