Healthy Fruit, Volume 20, Number 6. May 8, 2012

Contents

Current (through May 7) degree day (DD) accumulations

Location: UMass Cold Spring Orchard, Belchertown, MA
Base 43: 529

Upcoming pest events (based on current DD accumulations: Base 43 at 456 on 30-April)

European red mite 1st summer eggs	447-555
Oriental fruit moth 1st flight peak	352-550
Spotted tentiform leafminer sap feeders present	343-601
Lesser appleworm 1st flight peak	355-773
Lesser peachtree borer 1st catch	482-684
Plum curculio oviposition scars present	485-589
Codling moth 1st catch	400-578
McIntosh fruit set	510-600

Upcoming meetings

May 15, 16, 17: Fruit Twilight Meetings:

- May 15: Apex Orchard, 153 Peckville Rd., Shelburne Falls, MA
- May 16: Carlson Orchards, 115 Oak Hill Rd., Harvard, MA
- May 17: Noquochoke Orchards, 594 Drift Rd., Westport, MA

☑ Special guest speaker Win Cowgill, Rutgers Cooperative Extension
☑ Tree fruit twilight meetings start promptly at 5:30 PM.
☑ 1 (one) pesticide recertification credit will be offered.
☑ There will be a $25 meeting admission charged at the door. ($20 for Massachusetts and Rhode Island Fruit Growers' Association FULL members.)
☑ A light meal or snack will be served at all meetings.
☑ For more information, call Jon Clements: 413-478-7219

July 16: Massachusetts Fruit Growers' Association Summer Meeting, UMass Cold Spring Orchard, Belchertown, MA

July 26-27: International Fruit Tree Association 2012 Quebec Study Tour, Montreal PQ, Canada. More information: http://www.ifruittree.org/?page=2012StudyTour

The way I see it (J. Clements)

Finally seeing some fruit sizing up and can contemplate thinning. The upcoming weekend looks like reasonable weather to apply thinning sprays. It's best to get 6-8 hours of drying, so probably hold off in this showery pattern. See Duane Greene and Terence Robinson comments on thinning below.

Otherwise, disease pressure is still high so stay covered up for scab, mildew, fabraea, brown rot, etc. (Fireblight is the only non-issue with this cooler weather.) We are at a peak and disease pressure will now diminish until we get into summer diseases for apples and fruit brown rot in cherries and peaches. I think for the majority of us, primary scab season will be over when this week of wetting ends.

As far as a petal fall spray goes, I am going to pull Art Agnello's comments from Scaffolds directly. No one says it better than him.

Horticulturally, fertilizers should be going out, and a Promalin spray on just-planted apple trees to promote branching (if necessary) should be going on as the buds break and on a warm day. (I did some yesterday.)

Finally, you should have gotten a request to fill out an on-line survey on using sanitation procedures to reduce apple scab risk. Dan Cooley is the primary researcher on this project, so please take the time to fill it out at your earliest convenience.

2012 New England Tree Fruit Management Guide available

It's still not too late to order your 2012 New England Tree Fruit Management Guide. Attached is an order form. If you feel you can live without the hard copy, feel free to go for it: http://fruit.umext.umass.edu/2012netfmg/

Native Pollinator Conservation Baseline Assessment (S. Schloemann)

UMass Extension is undertaking some training activities over the next 3 years on native pollinator conservation. This is in response to concerns about the availability and reliability of traditional pollinators (honey bees) for many crops due to multiple factors

such as colony collapse disorder (ccd), varroa mites and other pests/pathogens, increased rental fees, reduced hive availability, etc.

In order to establish the current extent of knowledge about native pollinator conservation and use of practices that can help conserve them, a baseline survey is needed.

Please consider taking a few minutes to fill out a survey that can be found at: http://www.surveymonkey.com/s/D9KGM23 to help us establish this baseline. The survey is anonymous and should take only a short time to fill out. Please fill it out regardless of whether you are signed up for any planned trainings.

You may receive this request more than once (sorry!) but please try to only respond one time.

Many thanks!

Again, the survey can be found at: http://www.surveymonkey.com/s/D9KGM23

Comments on the apple fruit thinning Part I (D. Greene)

Flower and fruit development have proceeded slowly over the past week. Consequently, much of what was said last week is still applicable this week. Flowers that were pollinated and fertilized are now starting to size. This increase in fruit size is an indication of initials set not but not of fruit health or vigor. Fruit do not increase substantially in size until they get to 6.5 to 7 mm. The growth rate of a health fruit should be from 0.75 to as much as 1 mm per day starting then. It is not until you see this more rapid increase in fruit size can you have any confidence or insight into fruit viability. Cut developing fruit open to examine for seeds and look for brown areas.

I continue to suggest that you proceed cautiously and to be conservative in any chemical thinning you plan to do in the near future. Varieties that are difficult to thin or are biennial deserve special attention. If spur leaves look healthy (not crinkled, yellow or small) and initial set looks good a minimum of carbaryl or carbaryl with a low rate of NAA should be considered. AmidThin remains an options during this period of time. During the upcoming week fruit of most varieties should size to the 6 to 7 mm stage and thus this will give you a much better idea of fruit health and vigor. This is more or less the acid test we need to know to serve as a guide to thinning in the 7 to 14 mm stage. It is during this 7 to 14 mm stage of fruit development that fruit are most vulnerable to thinners and a carbon deficit. Pay very special attention to a deficit in the carbon balance during this fruit growth period.

If you have not applied Apogee yet this week should be a good time to start. We recommend using no more than 4 oz per 100 gal.

Comments on the apple fruit thinning Part II

(These comments are re-printed from Mike Fargione's e-mail Grower Message from 5/4/12. They are the aftermath of thinning meetings held in the Hudson Valley last Thursday with Terence Robinson in attendance, so I assume they are mostly his. Much of what he says can be applied to us, just remember it is from last week and their frost/freeze damage may be different than ours. J. Clements)

"I will work up complete highlights of the comments from out thinning meetings yesterday. For now, here are the critical points to consider:

- There is extensive crop damage but it varies by site, micro-climate and height within the tree. The situation is similar or worse in many parts of the Eastern US.
- The Hudson Valley still has blocks of apples and pears that will need to be thinned, but there are a lot of blocks where light or no thinning is required.
- You cannot tell what the potential crop is at this time without cutting fruit and looking for damaged internal parts. Damaged fruit have a brown spot or brown seeds inside, and will likely not survive. There are a lot of fruit that are not brown but slightly off-color. We will know better by Monday. Use this weekend to evaluate damage.
- Use a systematic approach when sampling buds for damage by checking upper and lower sections of blocks as well as on slopes (these can all have different crop survival). Collect fruit from chest height and tops of trees. The variability can be huge on any given site.
- "Wait and see" is the best thinning action right now, as next week will start the optimal thinning window for most cultivars. The exception to this are very hard-to-thin cultivars that must receive 2 thinning sprays to reduce crop load and/or ensure return bloom.
- The very hard-to-thin cultivars (specifically Honeycrisp, Gala, Macoun, Golden Delicious and Cameo) should get a thinning spray this weekend IF they have a good set with 4-5 live fruit per cluster (you will have to cut fruit to know this). Thinning of all other cultivars should be put off until after assessments are made next week. This spray should go on well-set, hard-to-thin cultivars in the next couple of days since you should have to follow up with a second spray in 5-7 days, which will put us just about out of the effective thinning window.
- The carbohydrate model indicates small to moderate carb deficits this weekend. This means trees are expected to respond moderately to thinners applied this weekend. However, the damage to fruit and foliage may mean they may behave differently.
- Fruit will be valuable this year. Making good thinning decisions is even more critical than normal. Go with moderate rates this weekend where you see a good set on hard-to-thin cultivars. You will have a second shot and can touch-up with hand-thinning if needed, but you can't put them back on the tree once they fall off!
- Dr. Robinson suggested that you turn the bottom half of nozzle banks off when thinning this season. This is because more fruit will be in the tops of trees and you may overthin if you directly spray the whole tree. Enough thinner will drift down to adequately thin the lower branches if the bottom nozzles are off. The exception to this may be very well-set Tall Spindle blocks of Gala where you should use the full banks of nozzles."

Guest Article: Direct Approach - Remains of the Day

Art Agnello, Entomology, NYSAES Geneva. Reprinted from Scaffolds Fruit Journal, May 7, 2012. http://www.scaffolds.entomology.cornell.edu/index.html

We still haven't progressed far enough to know just how much viable fruit there is on the trees this season, but some early indications suggest that, at least in some locations, there may be more than first predicted. Most sites in western NY have yet to actually complete petal fall, and even in the Hudson Valley, the picture is far from clear. As advised last week, the decision of what to do about protecting the remaining fruits will need to be based on careful inspection after (probably) still more waiting. Proceeding on the assumption that the insects of most concern in planning any petal fall sprays will be those directly attacking the fruits, here's a brief review of the guidelines for addressing the other pests normally included in this category besides plum curculio (covered last week):

European Apple Sawfly

This primitive bee and wasp relative shows a preference for early or long-blooming varieties with a heavy set of fruit. This insect is generally a pest mainly in eastern N.Y., although it has been gradually making its presence known in the more western sites, recently progressing as far as Wayne Co. (or beyond). The adult sawfly emerges about the time apple trees come into bloom and lays eggs in the apple blossoms. Young larvae begin feeding just below the skin of the fruits, creating a spiral path usually around the calyx end. This early larval feeding will persist as a scar that is very visible at harvest. Following this feeding, the larva usually begins tunneling toward the seed cavity of the fruit or an adjacent fruit, which usually causes it to abort. As the larva feeds internally, it enlarges its exit hole, which is made highly conspicuous by a mass of wet, reddish-brown frass. The frass may drip onto adjacent fruits and leaves, giving them an unsightly appearance. The secondary feeding activity of a single sawfly larva can injure all the fruit in a cluster, causing stress on that fruit to abort during the traditional "June drop" period.

Certain insecticides that control this pest also adversely affect bees, which can pose a problem at petal fall because certain apple varieties lose their petals before others. In blocks of trees where petal fall has occurred on one variety but not the others, the variety that has lost its petals is likely to sustain some curculio or sawfly injury until an insecticide is applied. Some newer insecticides with activity against both plum curculio and sawfly -- Calypso, Avaunt and Actara -- may have a slight advantage over conventional OPs in this case. Assail represents another option for controlling sawfly; it's not very active against plum curculio, but will do a good job against rosy apple aphid and spotted tentiform leafminer, as well as sawfly, at this timing. To minimize the hazard to honey bees, apply any pesticide only when no bees are actively foraging on blooming weeds (evening is better than early morning).

Obliquebanded Leafroller

Larvae overwintering as 1st or 2nd stage caterpillars may have had the ability to grow to a noticeable size, although we haven't actually seen any up to this point, so most are likely still relatively small. While you're assessing bud viability, it would be prudent to have a quick look for later-stage larvae in problem blocks to determine whether a treatment against the overwintered brood should be included in your petal fall plans. Scout the blossom clusters or foliar terminals for larvae feeding within both the flowers and rolled leaves; a 3% infestation rate could justify an application to minimize overwintered fruit damage and help reduce summer populations.

Among the selective insecticides available, Intrepid has been successful at this timing, and B.t. products, which can be used while blossoms are still present, include Dipel, Deliver, Agree, Biobit and Javelin. More recently, Proclaim has been shown to be very effective at the petal fall timing, and also provides activity against early season mite populations. Delegate, Altacor, and Belt all offer very good efficacy against not only OBLR, but also the internal leps. Pyrethroids such as Asana, Baythroid, Danitol, Warrior, Proaxis or Leverage may also be effective, depending on past use history, but be aware of their broad-spectrum effects, which can work both for and against you, according to your approach to conserving beneficial mites and insects.

Oriental Fruit Moth

Biofix will be very spread out across NY again this year, with most WNY sites yet to record any moth captures; moderate temperatures forecast for this week will likely continue the indistinct pattern of emergence in most sites. Use the NEWA Apple Insect Models page to chart current degree day

(base 45°F) progress towards the recommended totals of 170 (in peaches) and 350 (in apples) as the timing at which to apply a protective spray. To maximize the efficacy of 1st brood control, peach growers should use one of the suggested options from the Recommends starting at petal fall, backed up 10–14 days later. In apples, in addition to Delegate, Altacor, and Belt, a number of the petal fall selection of insecticides will do an acceptable job of controlling this generation, including the OPs, pyrethroids, Intrepid, Assail, Avaunt, and Calypso.

Useful links

- UMass Fruit Advisor: http://umassfruit.com
- Scaffolds Fruit Journal: http://www.nysaes.cornell.edu/ent/scafolds/
- Network for Environment and Weather Applications (NEWA): http://newa.cornell.edu
- Follow me on Twitter (http://twitter.com/jmcextman) and Facebook (http://www.facebook.com/jmcextman)
- UMass Vegetable & Fruit IPM Network (on Facebook, https://www.facebook.com/umassipmteam)

McIntosh apple fruit set, May 8, 2012
UMass Cold Spring Orchard, Belchertown, MA

The next Healthy Fruit will be published Tuesday, May 15 or thereabout, 2012. As always feel free to get in touch with any member of the UMass Fruit Team (http://extension.umass.edu/fruitadvisor/about/members) if you have questions or comments.

UMass Extension

CENTER FOR AGRICULTURE

May 15, 16, 17 -- 2012

Extension Fruit Program Twilight Meetings

in cooperation with Massachusetts and Rhode Island Fruit Growers' Associations

Tuesday, May 15 – Apex Orchard
153 Peckville Rd., Shelburne Falls, MA
413-625-2744
Host: Tim Smith

Wednesday, May 16 – Carlson Orchards
115 Oak Hill Rd., Harvard, MA
800-286-3916
http://www.carlsonorchards.com/
Host: Frank and Bruce Carlson

Thursday, May 17 -- Noquochoke Orchards
594 Drift Rd., Westport, MA
508-636-2237
http://www.noqorchards.com/
Host: George and Sue Smith
note: May 17 Meeting in collaboration with Rhode Island Fruit Growers' Association -- Rhode Island growers are encouraged to attend. Come a little early (5 PM) for food...

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- ☑ Tree fruit twilight meetings start promptly at 5:30 PM.
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