



Healthy Fruit, Volume 20, Number 16. August 7, 2012

Contents

- Current degree day (DD) accumulations
- Upcoming pest events
- Orchard Radar key dates
- The way I see it
- Updated thoughts on the use of ReTain from Duane Greene
- Guest article: Hudson Valley Pest Management Update
- NEFCON 2012 Research & Demonstration Field Day
- Useful links

Current degree day (DD) accumulations

Through August 6. Location: UMass Cold Spring Orchard, Belchertown, MA

Base 43: 2869

Base 50: 2106

Upcoming pest events

based on current DD accumulations: Base 43 at 2869 on 6-August

Oriental fruit moth 3rd flight peak	2662-3236
Obliquebanded leafroller 2nd flight peak	2593-3011
Apple maggot flight subsides	2772-3258
Codling moth 2nd flight subsides	2845-3493
Redbanded leafroller 3rd flight begins	2594-2976
Redbanded leafroller 3rd flight peak	2717-3207
Lesser appleworm 2nd flight peak	2131-3105
Lesser appleworm 2nd flight subsides	2794-3488
Spotted tentiform leafminer 3rd flight peak	2561-3021
Lesser peachtree borer flight subsides	2996-3446
Peachtree borer flight subsides	2478-3126

Orchard Radar key dates

Below are key dates for insects and mites (and McIntosh harvest date) from Glen Koehler's (U. of Maine) Orchard Radar output from Belchertown, MA. You can look at Orchard Radar for Belchertown here: <http://pronewengland.org/AllModels/MAModel/RADARMA-Belchertown.htm>

Codling moth (CM): Codling moth development as of AUGUST 7: 2nd generation adult emergence at 95% and 2nd generation egg hatch at 76%. 2nd generation 30% CM egg hatch: July 25, Wednesday = target date where one spray needed to control 2nd generation CM.

Apple maggot fly (AMF): Rough guess of peak AM trap captures is: JULY 23, Monday.

Preliminary McIntosh harvest date forecast: Date to apply ReTain to delay first harvest for apples which without treatment would be ready for storage harvest on August 23 is Thursday, JULY 26. Begin measuring actual McIntosh starch-iodine index no later than Saturday, AUGUST 18. The Michigan formula estimates that non-spur McIntosh will reach starch index 4.0 and start the optimum window for long term storage on Thursday, AUGUST 23. Using the Hudson Valley NY formula, McIntosh maturity is forecast to reach starch index 6.0 (end of optimum harvest for long-term storage) in Belchertown, MA on Saturday, SEPTEMBER 15.

The way I see it

I am on a bit of a vacation so I can only surmise what is going on. Clearly, we are in the middle of peach harvest, with Redhaven, the cultivar by which all other peach harvest dates are compared, is in the middle of harvest. I know for a fact that apple harvest has begun, with growers picking Sunrise (already), and very soon (this week) Paulared, Gingergold and maybe Sansa. ReTain applications have started with this week being a peak week for application to McIntosh apples anticipated to be harvested beginning app. 1-September. (Begin to monitor Mac maturity in about 2 weeks.) Watch for drop closely, indications are it might be heavy this year given the advanced season and hot summer. I have already heard a report of Honeycrisp coming off. If you have not already done so, a half-rate of ReTain on both Honeycrisp and Gala is indicated NOW! See the ReTain article by Duane Greene below for more finesse on applying ReTain. Finally, consider this comment from Mike Fargione out of the Hudson Valley: "Yesterday we evaluated some 'McIntosh' that were surprisingly far along for Retrain-treated fruit, so I am running maturity tests on a few blocks this week and will report the results Thursday morning. It is possible some blocks may be ready for harvest for CA before the predicted window in another 2 weeks."

The pest management season is pretty well over, but see the Guest Article from Peter Jentsch. Also, this sobering thought from the folks in Connecticut: "Spotted Wing Drosophila (SWD) are everywhere and there is no way you will make it through the rest of the season with a harvestable crop without spraying." Fortunately, apparently apples are not bothered by SWD. J. Clements

Updated thoughts on the use of ReTain

Two weeks ago I presented my initial thoughts for drop control and maturity retardation with ReTain. Little has changed since then. The season is advanced by 10 to 14 days? Consequently, application of the first ReTain spray should be very soon. Early applications especially at the 1 pouch per acre rate, will give the maximum delay of ripening, and this may be a 7 -9 day range. If applied this early, a second application, probably at a reduce rate of ½ to 2/3 pouches per acre will be in order to maintain drop control well into September. For those interested primarily in drop control, initial application early next week will be appropriate.

Because of the ambiguity related to the ReTain label and the varying needs of the individual growers, it is difficult to give you specific timings and rates for drop control. A good rule of thumb is to use ½ to 2/3 rates in a multiple application approach with repeat timings spaced between 14 to 21 days apart. In this very early season it is not unreasonable for some to make 4 repeat applications. While this may seem to be excessive, an apple on the tree is worth a great deal more than one on the ground. Further, an apple increases in size by 1% per day it remains on the tree. Consequently, fruit that remain on the tree for an additional 3 weeks will be 20% larger.

The addition of NAA to the spray tank in early or initial applications(s) is becoming much more common. Research has shown that the combination spray is more effective at retarding drop than ReTain alone, especially in warm years. While there is no precedent in the literature to suggest that NAA will retard ripening, the addition of NAA to higher rates of ReTain in the early applications appears to retard ripening and delay drop more than just ReTain alone. We will continue to test this but for now we continue to recommend 1 to 2 applications of 10 ppm NAA in the initial ReTain applications. If you limit your applications to two 10 ppm NAA sprays and they are accompanied by at least a half rate of ReTain advanced ripening due to NAA is unlikely. If tree row volume dilute is over the 150 gal/acre rate, use of ReTain more than a 0.5 pouch per acre may be appropriate.

During very warm weather we generally suggest that a lower surfactant rate be used with ReTain to minimize phytotoxicity. Most orchardists use Silwet L-77 at 0.1% (12-14 oz. per 100 gallons spray). Since phytotoxicity may be possible if applications is made when temperature reach the mid to upper 80s, we suggest that you consider lowering the rate of surfactant used. Enhanced foliar penetration occurs at higher temperatures, so concerns that uptake of ReTain will be compromised if a lower surfactant rate is used, are generally unfounded. Rates of Silwet L-77 as low as 0.05% (6-7 oz. per 100 gallons spray) have been effective in warm weather. D. Greene

Hudson Valley Pest Management Update

Peter Jentsch (pjj5@cornell.edu), Cornell's Hudson Valley Lab, Highland, NY. Reprinted from Scaffolds Fruit Journal, Vol. 21, No.22, August 6, 2012, <http://www.scaffolds.entomology.cornell.edu>

Obliquebanded leafroller (OBLR)

The first adult of the 2nd generation has been observed in pheromone traps at the Hudson Valley Lab; we will use this as a biofix for predicting degree-day management events. The modeling date for larval emergence is expected to begin on 17- August, based on weather forecasts for the region. At this crossroads it would be wise to get into the orchard to break open clusters of Red Delicious and Cortland to look for feeding injury and pupae. If unmanaged OBLR populations present in orchard blocks have caused feeding damage to fruit this season, it may be prudent to monitor larval emergence of the 2nd generation, and include appropriate insecticide inputs as needed. The link to NYS-labeled materials that are effective against this insect can be found at: <http://treefruitipm.info/PesticidesForPest.aspx?PestID=36&GrowthStageID=12>

Codling Moth (CM)

Moths from the second generation are actively flying, and egg hatch continues to be heavy. Additional applications for the second generation should be considered if this pest is present in the orchard. Materials such as Assail, Calypso, the pyrethroids (or pyrethroid pre-mixes), and Imidan, used against the apple maggot, may have controlled susceptible CM populations if used at the appropriate rates and under favorable weather conditions. Some materials, such as Actara, have no activity against CM. If a codling moth insecticide, such as Altacor, Belt, or Delegate, is specifically needed, a second spray, 10–14 days after the initial spray and timed at the hatching larvae of the second generation, should be applied at this time. This application would also be effective against OFM. The link to NYS materials effective against CM can be found at: <http://treefruitipm.info/PesticidesForPest.aspx?PestID=24&GrowthStageID=12>

Stink Bug Update

We are seeing increased stink bug activity in organic vegetables (tomatoes and pepper), apples and pears. We have observed feeding damage and increasing stink bug populations both on commodities and in traps. Both nymphs and adults of Brown Marmorated (BMSB) and Green Stink Bug are showing up along the edge of vegetable fields and orchards, with increasing black light trap captures of these two species being observed over the past two weeks. Significantly higher populations have been seen this year compared with 2011. This may be due to drought conditions during the middle to latter part of the season that favor stink bug development.

Scouting for both native stink bug species and the invasive BMSB is recommended along borders of hedgerows and woodlots. Native species will feed in lower fruit, while BMSB tend to be most numerous in the tops of the trees. In blocks where stink bug injury has occurred in the past, the pyrethroids, the pyrethroid/neonicotinoid pre-mixes, Lannate SP, and Actara (labeled in stone fruit only) are very effective near harvest. Note that products containing thiamethoxam have a 35 PHI in tree fruit.

New England Fruit Consultants

2012 Research & Demonstration Field Day

New England Fruit Consultants in collaboration with Apex Orchards will present the results of this year's field trials with various crop protection materials, growth regulators and other products that play an important role in crop production in New England.

**** Pesticide license recertification credits (3.0) will be offered for attending the meeting ****

Date : Thursday August 16, 2012

**Location : NEFCON Research Farm / Apex Orchards
153 Peckville Road
Shelburne, MA 01370**

Time : 9:00 AM - 2:00 PM

**Directions : From all areas, take Rt. 91 or
Rt. 2 to the Greenfield rotary (exit 26)
Take Rt. 2 (Mohawk Trail) west 3 miles
to Peckville Road
Take right - orchard is 1/2 mile**

***If planning to attend, please R.S.V.P. by phone or email by
Monday August 13th.***

[413-367-9578](tel:413-367-9578) (phone)

nefcon@aol.com

Tentative Agenda

9:00 AM – 9:30 AM – Welcome and orientation – coffee, juice and doughnuts

9:30 AM – 11:00 AM - Orchard tour of research and demonstration plots

11:30 PM – 12:30 PM – Speaking program – Emerging and/or previously secondary pest challenges in 2012, Biology and control of powdery mildew (Dr. David Rosenberger), Insights and experiences with controlling codling moth and oblique-banded leafroller (Peter Jentsch – invited), update on Spotted-wing drosophila, updates on research projects in progress

12:30 - ???? - Free B-B-Q lunch

Catering by Bub's B-B-Q

“Best barbecue in the Pioneer Valley for over 30 years”

**B-B-Q Spare Ribs, Chicken, Pulled Pork Sandwich, Dill Potato Salad
Spicy “Dirty” Rice, Orange-glazed Sweet Potatoes**

Useful links

- UMass Fruit Advisor: <http://umassfruit.com>
- Scaffolds Fruit Journal: <http://www.nysaes.cornell.edu/ent/scaffolds/>
- 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>)

The next Healthy Fruit will be published Tuesday, August 21, 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.