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Current degree day accumulations

Location: UMass Cold Spring Orchard, Belchertown, MA

	26-August, 2013
Base 43	3078
Base 50	2250

Note: this will be the last 'Current degree day accumulations' report for 2013

Upcoming pest events

Coming events	Degree days (Base 43)
Obliquebanded leafroller 2nd flight peak	2593-3011
Obliquebanded leafroller 2nd flight subsides	3095-3473
Oriental fruit moth 3rd flight peak	2662-3236
Oriental fruit moth 2nd flight peak	

Oriental fruit moth 3rd flight subsidies	2928-3412
San Jose scale 2nd flight subsidies	2673-3419
San Jose scale 2nd gen. crawlers emerge	2746-2852
Apple maggot flight subsidies	2927-3353
Codling moth 2nd flight subsidies	2845-3493
Redbanded leafroller 3rd flight peak	2717-3207
Lesser appleworm 2nd flight subsidies	2794-3488
Peachtree borer flight subsidies	2478-3126
Spotted tentiform leafminer 3rd flight peak	2578-3030

Note: this will be the last 'Upcoming pest events' for 2013. Thanks to Art Agnello and Scaffolds Fruit Journal for providing this information season-long.

Orchard radar apple insect key dates (and preliminary McIntosh harvest date forecast)

Here are insect key insect dates from [Orchard Radar, Belchertown, MA](#).

Codling moth (CM) Codling moth development as of August 27: 2nd generation adult emergence at 100% and 2nd generation egg hatch at 93%.

Preliminary McIntosh harvest date forecast: Begin measuring actual McIntosh starch-iodine no later than Monday, August 26. The Michigan formula estimates that non-spur McIntosh will reach starch index 4.0 and start the optimum harvest window for long term storage on Thursday, September 5. Using the Hudson Valley, NY formula, McIntosh maturity is forecast to reach starch index 6.0 on Monday, September 23.

Note: this will be the last 'Orchard radar' report for 2013. Thanks to Glen Koehler and [Orchard Radar](#) for supplying this season-long service.

The way I see it

The pest control season is winding down as harvest season ramps up. All-in-all, it has been an "average" season with no one pest in particular standing out. I will say that stink bugs (in general) have been sparse compared to last year, while the moth pests (codling and Oriental fruit) have been more numerous. Apple maggot fly is still active, so watch that and maintain some insecticide coverage on ripening apples.

With this Healthy Fruit I will begin apple maturity reporting, and continue that into September. There will be a maturity report coming out next week 1-2 days after Labor Day. Thanks for listening. JC

Insects

Nothing of significance to report here except the fact apple maggot fly (AMF) is still active, and near-term ripening apple (as they are most attractive to AMF) should be protected with insecticide.

You should also note that spotted wing drosophila (SWD) numbers are way up as reported on the UMass Fruit Advisor. Peaches allowed to dead-ripen and/or start to rot on the trees are susceptible. Good, sound

(but nonetheless ripe) peaches do not appear to be particularly attractive to SWD. Keep picking as soon as the peaches are tree ripe (see [Peach ripening tips](#)) and practice sanitation as feasible. Just in this afternoon, [2013 update on SWD management](#) from Michigan State University.

Diseases

I had a recent report of "large black spots" on Honeycrisp. Most likely some kind of rot. Honeycrisp fruit are susceptible to summer rots -- bitter, black, and white rot -- an may need more late-season fungicide applications to prevent pre-harvest rot infrection. Here is a brief excerpt by David Rosenberger from the 2003 New England Fruit Meeting Proceedings ([link to whole article](#)):

Controlling Summer Rots on Honeycrisp

"Honeycrisp is more susceptible than most other cultivars to summer fruit rots caused by *Botryosphaeria obtusa* (black rot), *B. dothidea* (white rot), and *Colletotrichum* species (bitter rot). Bitter rot is primarily a problem in regions with hot humid weather during August, and such climates are less than ideal for producing Honeycrisp. However, black rot and white rot are likely to occur to some degree anywhere that Honeycrisp is grown. This cultivar tends to retain fruitlets that are killed by thinning sprays, and these small fruitlet mummies harbor the fungi that later produce spores to infect maturing fruit during August. Topsin M, Sovran, and Flint are all effective for controlling black rot and white rot. A combination of Topsin M plus captan applied approximately 28 and 14 days before harvest may be needed to control fruit rot diseases on Honeycrisp, especially if the preharvest period is especially warm. Flint can be applied on a similar preharvest schedule, but Sovran has a 30-day preharvest interval and therefore is not useful for late summer sprays on Honeycrisp."

Also, you might want to review the article "[THE SUMMER DISEASE THREAT FOR APPLES](#)" that appeared in Scaffolds Fruit Journal on August 22, 2011, and/or the [July 23, 2013 Healthy Fruit](#) (particularly this neat table on '[Fungicide Ratings for Control of Summer Diseases](#)'). *There seems to be general agreement amongst plant pathologists that Pristine is probably the gold standard -- including probably the most expensive -- option for controlling summer rot diseases on apples, particularly on high-value varieties like Honeycrisp.* Flint + Captan or Merivon + Captan are options to Pristine. But, see the comment on Captan below, and watch PHI's and max. number of applications (or successive applications) on all of above.

Finally, I know we are at the end of the spray season, but I often deal with questions on spray-related leaf spotting, fruit russet. and/or various phytotoxicity issues. When using Captan, a reminder about the possibility of phytotoxicity stated right on the label (Captan 80WDG) when combining with other spray chemicals:

"CAPTAN 80WDG can be combined safely and effectively at recommended dosage rates with most commonly used fungicides and insecticides with the exception of oil and strongly alkaline materials. Alkaline materials such as spray lime, lime-sulfur, and Bordeaux mixture will reduce the fungicidal activity of CAPTAN 80WDG. Do not apply CAPTAN 80WDG in combination with or immediately before or closely following oil sprays. Do not allow oil sprays on adjacent crops to drift onto crops which have been or will shortly be treated with CAPTAN 80WDG. The time factor governing the safe interval between CAPTAN 80WDG and oil sprays varies due to general climatic conditions, therefore, consult local agricultural spray programs and authorities to determine the proper timing. The use of spreaders which cause excessive wetting is not advised. Combinations with solvent formulations of organic phosphates should not be used. Combinations of CAPTAN 80WDG and sulfur should not be used on crops sensitive to sulfur. Used at high rates or in drenching sprays, CAPTAN 80WDG may cause a necrotic spotting of tender, immature leaves of certain varieties of apples, peaches, plums, and cherries. This type of injury is most likely to occur in the early cover sprays during long periods of warm, cloudy, humid weather. To avoid the hazaard of leaf spotting under such conditions, use CAPTAN 80WDG and other spray materials at lowest recommended rates and avoid drenching trees."

Horticulture

Apple fruit maturity report for August 27, 2013

Note: all observations from UMass Cold Spring Orchard, Belchertown, MA and prepared by Jon Clements

Date	Variety	Drop	Diameter (inches)	% Red Color	Firmness (lbs.)	Brix	Starch Index	Comments
8/27	Ginger Gold	very few	3.2	NA	18	11.3	3-4	being harvested, very good quality
8/27	Sansa	-	-	-	-	-	-	already harvested
8/27	Akane	nil	3.0	90	18	12.9	6.5 (6-7)	should be harvested ASAP
8/27	Rubymac	very few	2.9	95	17	10.6	3.5 (3-4)	GREEN AS GRASS!
8/27	Paulared	-	-	-	-	-	-	already harvested
8/27	Dandee Red	many	3.3	95-100	16	12.5	4 (3-6)	drop prone, should be picked and sold as McIntosh-like apple right now; superior to Paulared
8/27	Zestar!	very few	3.3	65	14	11.7	5 (4-6)	going to be past it's prime soon, should be picked ASAP
8/27	Honeycrisp	nil	3.1	45	20	11.4	2 (1-4)	GREEN AS GRASS!

Useful links

UMass Fruit Advisor: <http://umassfruit.com>

UMass Fruit Notes: <http://umassfruitnotes.com>

Scaffolds Fruit Journal: <http://www.nysaes.cornell.edu/ent/scaffolds/>

Network for Environment and Weather Applications (NEWA): <http://newa.cornell.edu>

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UMass Vegetable & Fruit IPM Network (on Facebook, <http://www.facebook.com/umassipmteam>)

2013 New England Tree Fruit Management Guide (<http://fruit.umext.umass.edu/2013netfmgl/>)

The next Healthy Fruit (maturity report) will be published on Tuesday, September 3 or thereabouts, 2013. As always feel free to get in touch with any member of the UMass Fruit Team (<http://extension.umass.edu/fruitadvisor/team-members>) if you have questions or comments.