



Healthy Fruit, Vol. 31, No. 10, June 13, 2023

Prepared by the University of Massachusetts Amherst Fruit Team

Jon Clements, Editor

Current degree day accumulations

UMass Cold Spring Orchard, Belchertown, MA (NEWA, since January 1, 2023)	12-June (2022)
Base 43 BE	1024 (1138)
Base 50 BE	582 (665)

Upcoming meetings

June 14, Wednesday – [NH Vegetable & Berry Growers Association Twilight Meeting: New farm technology for vegetable and fruit production field day](#). June 14, 2023 | 3:00 - 7:00 pm
IN-PERSON Brookdale Fruit Farm, 38 Broad Street Hollis, NH 03049.

June 27, 2023, Tuesday – Apple Grower Listening Session, 10:00 AM – 12:00 PM Hillsborough County Extension Office (Large Conference Room), 329 Mast Rd., Goffstown, NH 03045. The Risk Management Agency (RMA) is inviting interested parties to participate in a listening session to discuss the proposed changes to the apple crop insurance program. These proposed changes were published in a Proposed Rule with request for comments on December 16, 2021. RMA invited public comments on this rule through April 15, 2022. RMA received comments to the Proposed Rule from approximately 200 interested parties. RMA is taking this opportunity to engage with interested parties to clarify the intent of the Proposed Rule before finalizing changes. A Final rule will be published no earlier than August 2024 for the 2025 crop year. <https://rma.usda.gov/en/Topics/Summer-2023-Apple-Grower-Meetings>

July 12, Wednesday – Annual Summer Meeting of the Massachusetts Fruit Growers' Association, Honey Pot Hill Orchards, 16 Boon Road, Stow, MA. 10 AM to 3 PM. Details forthcoming.

The way I see it

Jon Clements

I've been on a road trip out of state since last Thursday, so I am not at all caught up as to what is going on in the field locally. I was visiting orchards in Minnesota and Wisconsin where it is dry, no frost/freeze injury like here, and they have a nice crop of apples developing. Noteworthy are the number of new, tall-spindle plantings since about 2020. Red strain Honeycrisp (Royal Red, Firestorm) and MN 55 which they are allowed to market as First Kiss in Minnesota, but it is otherwise the managed variety Rave elsewhere. G.11 and G.935 rootstocks. These were significant acreage, very nice new plantings, it helps to not have much rocks. All irrigated too.

Last evening, Tuesday, June 13, I attended the CT Pomological Society Fruit Growers Summer Field Day at [Belltown Hill Orchards](#) in South Glastonbury, CT. Belltown Hill is a sprawling retail(?) apple, pear, peach, and cherry orchard. Unfortunately parts of the apple orchard were hit with hail last week on top of the (mostly) loss of the peach crop in February and some freeze damage to apples last month. Noteworthy items: drone spraying blueberries (and potentially other crops) presented by [Accurate Ag Spraying](#); Forigo one-pass tillage combination machine (and stone burier!) sold by [Brookdale Fruit Farm](#); [Toro Tempus Ag](#) automation of irrigation (and a cool new water/tree stress sensor called [Transpira](#)), also sold by Brookdale Fruit Farm; an app called InField ([Google Play Store](#) and [Apple App Store](#)) and that helps has all the pesticide information you will ever need at your fingertips (BTW, same pesticide database available at [appleipm.com](#), so why do we need a [Guide](#) anymore?); and a [drone study at UConn](#) that is looking at nutrient management and plant stress, presented by Evan Lentz (the new Mary Concklin). Really good stuff. I should have taken more pictures! But here's a [video](#) of the drone spraying...it's the future.

Otherwise, it's time for return bloom sprays on apples. See the links below under [Horticulture](#).

Entomology

Jaime Piñero

Weekly report of insect pest captures in monitoring traps at the UMass Cold Spring Orchard (Belchertown, MA)

[Trap-capture data at the UMass CSO.](#)

Period: June 7-13

Insect	Average captures/trap	Notes
Obliquebanded leafroller	0	1 Pheromone-baited delta trap

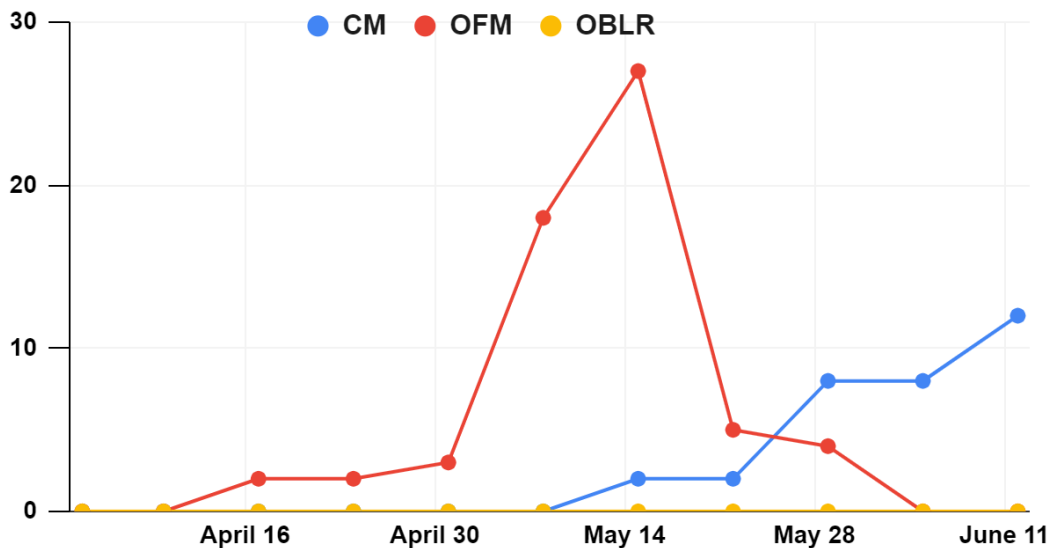
Codling moth	12	1 Pheromone-baited delta trap
Oriental fruit moth	0	1 Pheromone-baited delta trap
Redbanded leafroller	0	By-catch (OBLR pheromone lure)

Insect pest activity at CSO.

Plum curculio (PC). Both the results of scouting and the NEWA model indicate that the PC season is now coming to an end. However, if you have blocks with late-blooming cultivars and fruit diameter is less than 25 mm, you may want to continue monitoring for another week when fruits will be large enough to be rejected by the PC females.

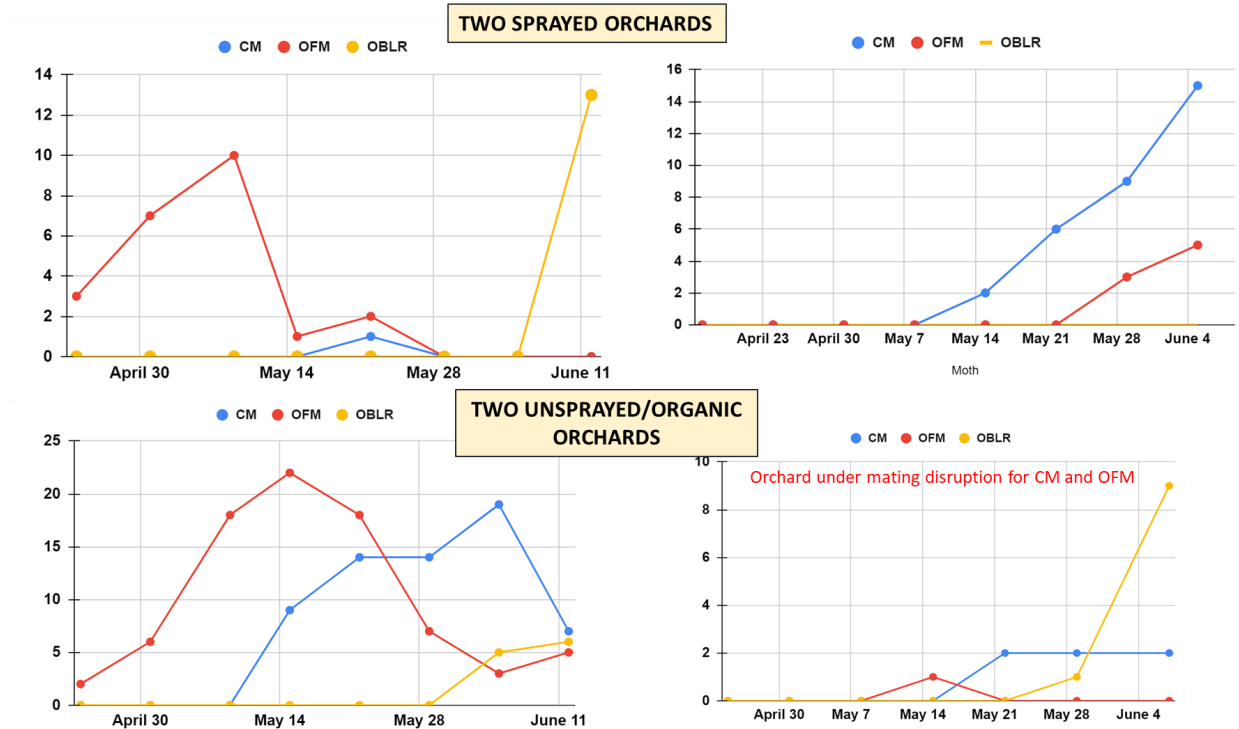
Lepidoptera. See chart below showing that the peak of OFM activity has passed whereas a couple of CM have been captured by one monitoring trap.

Weekly moth captures at CSO



Rosy apple aphid (RAA): RAA continues to be present in a spotty fashion at the UMass CSO. We are currently conducting sampling to quantify the level of infestation and also the possible presence of natural enemies (larvae of predatory insects, parasitic wasps).

Insect pest activity in other orchards: Oriental Fruit Moth (OFM) activity is minimal. Codling moth (CM) seems to have passed peak activity in some orchards - see charts below. Obliquebanded leafroller has become active, and in at least one orchard numbers are comparatively high.



Spotted-wing drosophila (SWD). We are monitoring this pest at 5 locations. No SWD has been found so far.

Pathology

Jon Clements

Dry, and I have not really looked around. Not sure I want to. Powdery mildew, ugh. That one is mostly water over the dam for this year, but a reminder, sanitation (cut infected terminals out where feasible), and be on top if it next spring pre-bloom.

Heard a report of fire blight infection yesterday, humph. Fire blight risk during bloom was pretty minimal to non-existent. Humph. I remember seeing this – [Frost-induced Fire Blight?](#) – earlier, but Hawkeye reminded me about it. Fire blight or blossom blight? Don't know, have to go have a look someday...or maybe Hawkeye will beat me to it and report back? (Update: 12:59 PM, Wednesday, June 14 – found at UMass Orchard, several varieties, sporadic but widespread enough. Blossom blast (*Pseudomonas sp.*) or fire blight (frost-induced), TBD.



Blossom blast (*Pseudomonas* sp.) or fire blight (frost-induced)? Paulared at UMass Orchard, 14-June (Flag Day), 2023.

One more item of note, last week at the fruit twilight meeting in Rhode Island, in an organic cider orchard. Notably mostly/almost exclusively on Golden Russet. An alarming case of Marssonina. (Confirmed by URI diagnostic lab, and I hate it when I am right!) No fungicides except maybe a copper application or two. These trees are going to defoliate early! Not good. Normally our primary scab fungicide sprays keep it at bay, but in no-low spray orchards an issue. And it can [sneak up on you if you slack off mid-late summer fungicide sprays on later harvested apple varieties](#).



Close up of raging Marssonina leaf blotch infection of no-low spray Golden Russet cider apples observed on 7-June, 2023.

Oh wait, see [2023 Disease Update: Prevent Bitter Rot on Apple](#) from Penn State Extension. An important read and action item for those who have struggled with bitter rot control in the past, especially now that it looks like we might be entering a wetter weather pattern?

Horticulture

Jon Clements

Return bloom sprays should be going on NOW particularly for problematic/biennial varieties like Honeycrisp. A couple of links below, and this, excerpted from Cornell ENYCHP Tree Fruit E-Alert, Donahue & Basedow, June 13 2023:

Northern NY Return Bloom Sprays with NAA or Ethephon

Mike Basedow, CCE-ENYCHP, Eastern New York

Return bloom applications can begin about 4-6 weeks after full bloom for biennial bearing varieties like Honeycrisp, Macoun, and Fuji, once fruitlets have exceeded 20mm in diameter. The recommended NAA rate is 2-4oz/100 gal, depending on variety, and the ethephon rate would be .5 to 1pt/100 gal. Four weekly applications are generally recommended. Do not apply ethephon when temperatures are going to be above the 80's the day of, or the two days following, the application. Applications of ethephon should not be made on Honeycrisp, Macoun, or Macs after July 15, as it may advance ripening at those late application times. NAA is most recommended for varieties ripening in late August through early September for the same reason.

[Enhancing Return Bloom of Apple](#) (UMass Extension Fruit Fact Sheet F-131-R 2009)

[Use of Plant Growth Regulators Improve Return Bloom and Fruit Set](#) (presentation by Terence Robinson and Poliana Francescatto)

Guest article

No guest article this week

Useful links

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

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>)

[The Jentsch Lab](#) (Peter Jentsch, Poma Tech)

[Acimovic Lab](#) (Srdjan Acimovic at Virginia Tech)

[Tree Fruit Horticulture Updates](#) (Sherif Sherif at Virginia Tech)

[CCE ENYCHP Tree Fruit Blog](#)

The next Healthy Fruit will be published on or about June 27, 2023. (I.e., going to every other week officially.) In the meantime, feel free to contact any of the UMass Fruit Team if you have any fruit-related production questions.

Thank you sponsors...



[Orchard Equipment and Supply Company, Inc. Conway, Massachusetts](#)



[Massachusetts Fruit Growers' Association](#)

VALENT®



[Valent USA](#)



ADAMA

[ADAMA](#)

Tougas
Family Farm

**Fresh Fruit, Fresh Air,
and Family Fun**

[Tougas Family Farm](#)



CT GREENHOUSE

Structures & Supplies

WWW.CTGREENHOUSE.COM

[CT Greenhouse Structures & Supplies](#)



[Farm Credit East](#)



[New England Vegetable & Berry Growers' Association](#)



[Agro-K](#)



[Seven Springs Farm Supply](#)