



Healthy Fruit, Vol. 29, No. 15, August 3, 2021

Prepared by the University of Massachusetts Amherst Fruit Team

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Upcoming meetings

The way I see it...

Jon Clements

Running out of steam as we approach the beginning of a new stage, from growing to harvesting. August is a good time to take a vacation unless you have peaches. Speaking of which, SWD was quite numerous in some nectarines (Silver Jem and Avalon, nice white- and yellow-flesh nectarines respectively) at the UMass Orchard, hmmm, but there were rots and defects. Still, I was taken aback by how easy it was to find them. Keep up with harvest and keep your fruit clean and it should not be a problem. A reminder, it is OK to pick peaches and nectarines not fully-fully tree ripe as I quote [Picking and handling tree-ripe peaches](#) "It is not necessary to wait for peaches to soften before they are tree-ripe."

You ought to collect leaves for nutrient analyses in the next week if you are going to do it.

ReTain will be going on apples soon. I hope you don't have too many questions on ReTain, it's been around for a long time. Nearly every apple variety could benefit from a ReTain application in some way-shape-form. Key points include do not apply to stressed trees, apply during slower drying times and don't spray when it is hot as the organo-silicone (OSI) surfactant can cause fruit spotting, ditto with do not include calcium chloride in your ReTain sprays with the OSI surfactant. Factoid from the ReTain Technical Manual: "Shelf life: at least 10 years in closed containers stored at less than or equal to 77 degrees F."

Cider apple growers might want to check out the upcoming Hard Cider Tour in the Albany, NY area sponsored by Cornell on August 25. Details and to register here:

https://enych.cce.cornell.edu/event_preregistration_new.php?id=1564

Congratulations go out to the Hardy's at Brookdale Fruit Farm, Hollis, NH for receiving American Fruit Growers' Apple Grower of the Year Award! [Read more about their recognition.](#)

Picture of the week -- some [silver leaf](#) showing up on Honeycrisp?



Insects

Jaime Piñero

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

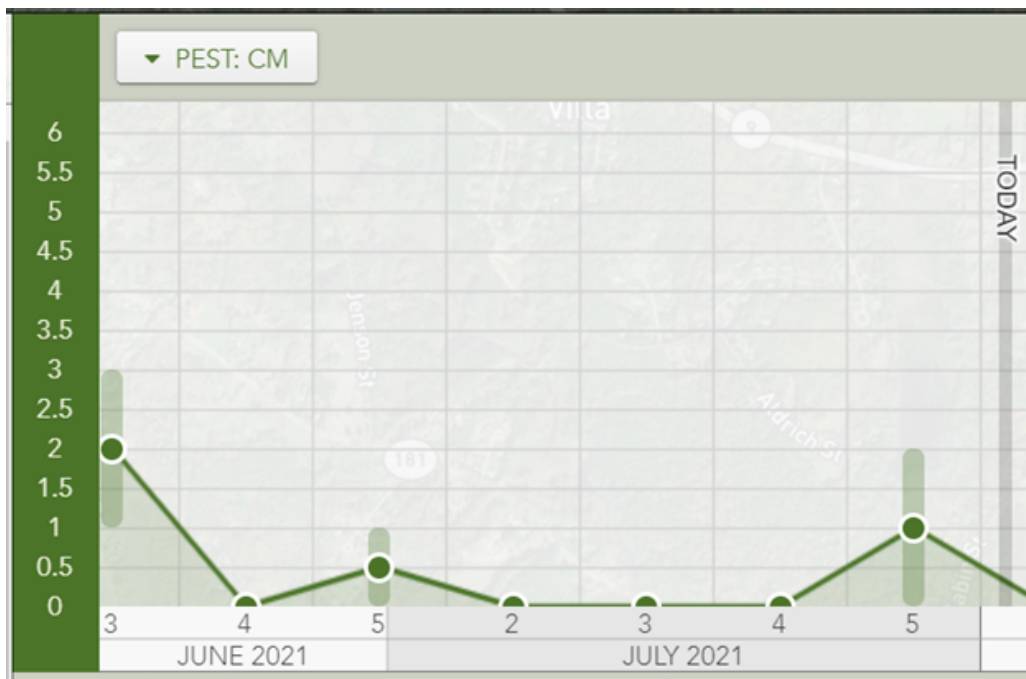
Period: 7.27 - 8.2.2021

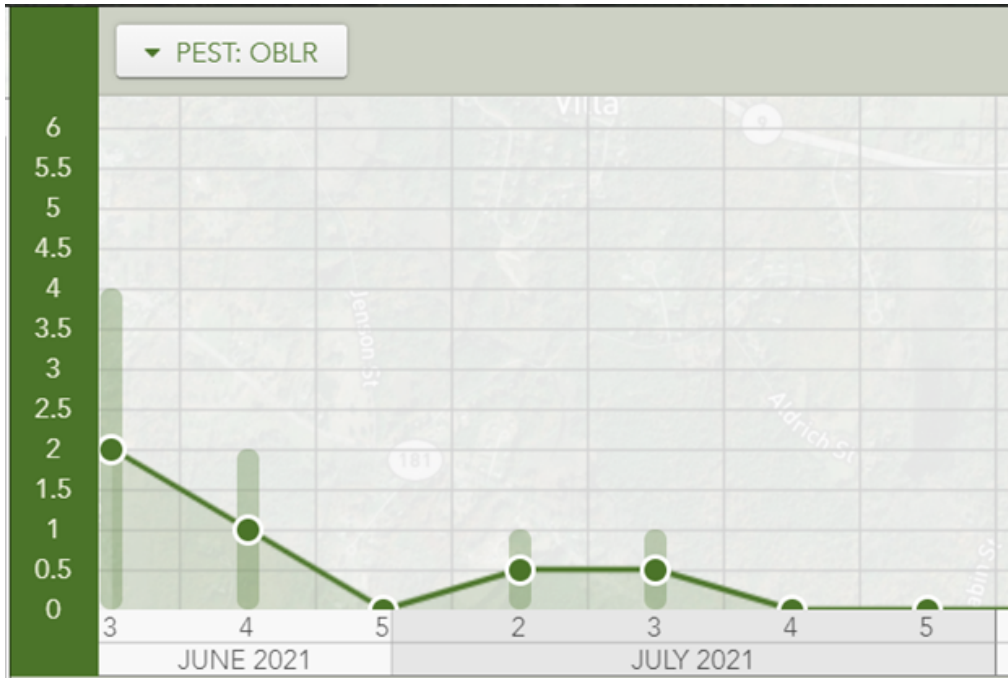
Insect	Average	Notes
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	captures/trap	
Obliquebanded leafroller	0	Pheromone-baited delta trap (CSO)
Codling moth	0	Pheromone-baited delta trap (CSO)
Oriental fruit moth	21	Pheromone-baited delta trap (CSO)
BMSB	0.3	Pheromone-baited clear sticky card (13 traps across MA)
SWD	124.6	Comparison of fresh and fermented diluted Concord grape juice vs. commercial lure (20 traps in all)

Codling moth (CM), obliquebanded leafroller (OBLR), and Oriental fruit moth (OFM). While at the Cold Spring Orchard CM and OBLR numbers remain low, OFM captures have increased over the past 2 weeks or so. Captures of all three moth species across 5 MA orchards are lower than at CSO: no more than 2 moths per trap per week.

The OBLR adult flight of the second generation will occur somewhere in August, and the larvae hatch in August and September. Newly hatched first-generation (summer) larvae move to and feed on tender growing terminals, watersprouts, or developing fruit. As these larvae reach the third instar, they display an increasing propensity to damage fruit. The second-generation larvae, which develop in late summer and fall, feed primarily on leaves until they enter diapause, although they may occasionally damage fruit.

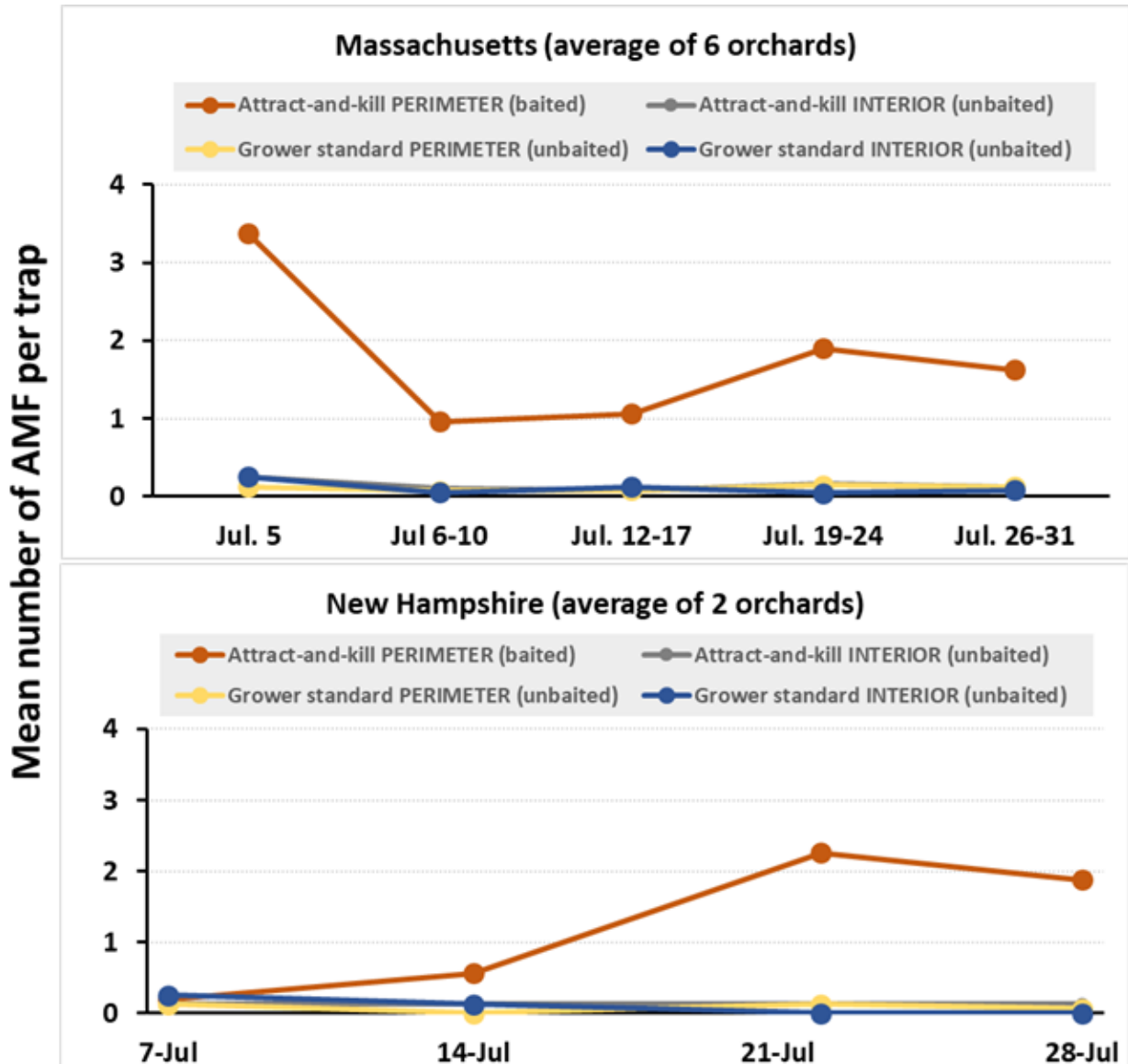




Apple maggot fly (AMF). Last week, I provided an update on the grafting project. This week, I am presenting the most up-to-date results on the attract-and-kill study we are conducting in MA (6 orchards), NH (2 orchards), and ME (1 orchard). The top graph shows weekly AMF captures in monitoring spheres in the 6 MA orchards, according to treatment. The bottom chart presents the mean number of AMF captured in the 2 NH orchards. It is evident that spheres deployed in perimeter-row trees of the attract-and-kill blocks are catching the most AMF. No AMF penetration in those blocks has been recorded, indicating that the lures and the

perimeter-row sprays of insecticide mixed with sugar (3-4 lbs. per 100 gallons) are performing well.

As shown below, AMF numbers for the past 2 weeks have been steady. Very few AMF have been recorded in the interior of AK blocks and grower control blocks.



Potato leafhopper (PLH). There have been some reports of PLH activity in some areas. PLH nymphs and adults feed primarily on immature leaves and actively growing shoots in the outer part of the canopy. Leaves injured by PLH feeding turn yellow on edges, cup upward, and



later turn brown or scorched. On mature trees, PLH damage may not be significant, but feeding on young trees stunts shoot growth.

We are still within the window of potential damage caused by PFL to new plantings.

Materials rated as highly efficacious include the neonicotinoids Actara 25WDG (2 to 2.7 fl. oz./A), Assail* 30SG (2.5 to 4 fl. oz./A), and Belay** (4 to 6 fl. oz./A), the anthranilic diamide Exirel (8.5 to 17 fl. oz./A), the sulfoximine material Transform 50WG (1.5-2.75 fl.oz./A) and the oxadiazine material Avaunt (5 to 6 fl. oz./A). For a complete list of materials that can be used against PLH, consult the [SPRAY TABLE](#) of the NETFMG.

*Assail has moderate activity against woolly apple aphid

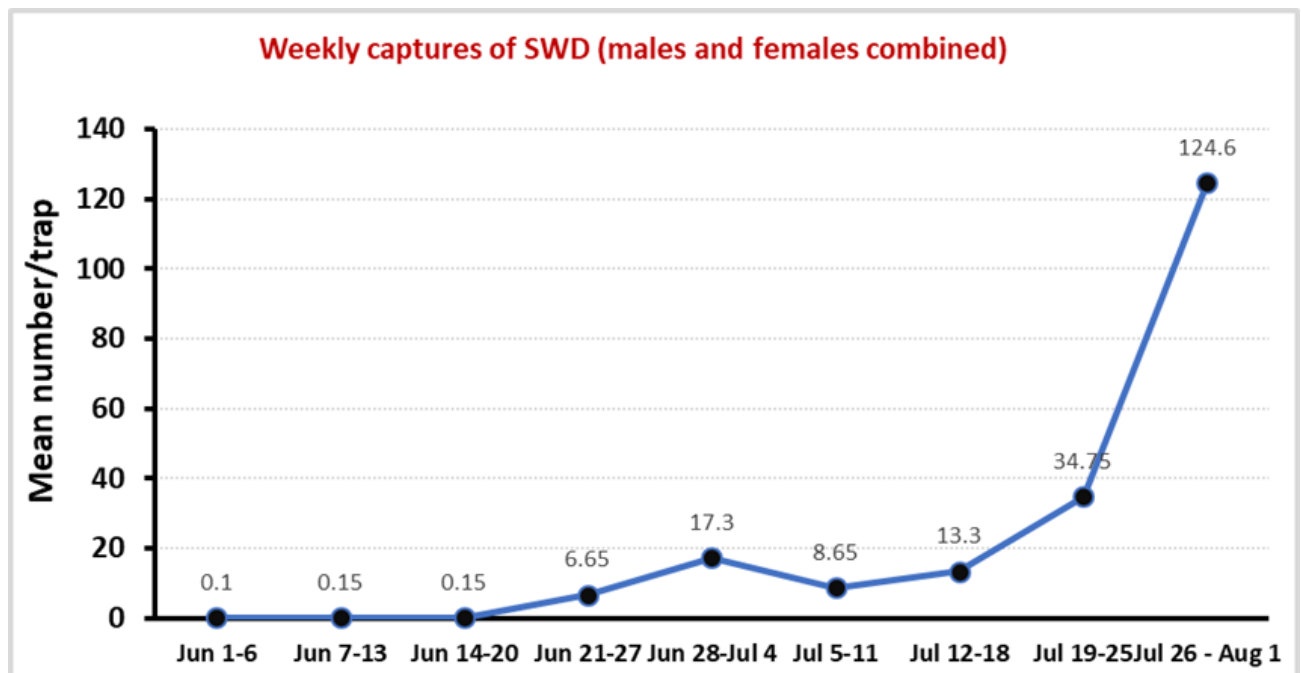
**Belay is considered to have good (yet not great) activity against BMSB.

	White apple leafhopper (<i>Typhlocube pomaria</i>)	Potato leafhopper (<i>Empoasca fabae</i>)
Description	<p>Adults are creamy white, about 3 mm in length and hold their wings over their back when resting. Nymphs are whitish green and are usually found on the undersides of older leaves. <i>They move forward and backward.</i></p> 	<p>Nymphs and adults are yellowish green to pale green. <i>Nymphs tend to move sideways and quickly retreat to the opposite side of the leaf when disturbed.</i></p> 
Life cycle	<p>Second-generation eggs begin to hatch during late July and August. The nymphs feed during August and are fully grown by late August or September. Overwintering eggs are laid during September and early October.</p>	<p>Potato leafhoppers overwinter as adults in southern states and move northward mainly through the action of storm fronts. The potato leafhopper is most damaging from mid-June to mid-August.</p>
Primary host	<p>Apple trees seem to be the only host that white apple leafhopper overwinters on. During the growing season this insect may also infest peach, plum, cherry and hawthorn.</p>	<p>Apple, grapes, strawberry, potato, many other vegetable crops, beans, alfalfa and approximately 200 other species of plants.</p>

Brown Marmorated Stink Bug (BMSB). Overall, the numbers of BMSB recorded in 13 MA orchards is comparatively LOW. Only 6 BMSB have been captured in the last 2 weeks.

Spotted-wing drosophila (SWD). SWD numbers went through the roof last week. The previous peak looks small compared to the 125 SWD per trap we recorded for the past 7 days. As a side note, one trap baited with diluted Concord grape juice and fermented for 7 days with 2% table salt captured 615 SWD in one week. A single trap!

At this moment, keeping good insecticide coverage remains essential for effective protection against SWD.



Diseases

Notes from the field

[Liz Garofalo](#)

Horticulture

Jon Clements, Editor

ReTain use recommendation on early apples

per the ReTain Technical Manual

Ed. note: rumor has it peach and then likely apple maturity is running ahead of “normal.” Not sure I am seeing it, yet. But pay attention.

Ginger Gold - has a “very short harvest window, and can quickly over-mature. The fruit starts out a very pale green, though if left on the tree it will ripen to a soft yellow with a waxy appearance. Growers typically use ReTain with Ginger Gold to help delay maturity, reduce greasiness, and maintain fruit quality throughout the harvest window.”

ReTain benefits **Ginger Gold** for Harvest Management and Fruit Quality/maturity Management

- Fruit drop reduction
- Ethylene reduction
- Increased firmness
- Delayed starch degradation
- Cracking reduction
- Skin greasiness reduction

ReTain rate/Timing for **Ginger Gold**: ½ to 1 pouch per acre at 2-3 weeks before harvest. (No late or double rate program for this variety. It is an early variety and growers want to harvest it before the main varieties arrive on the market.) Recommended adjuvant: organosilicone surfactant at 6.4 to 12.8 fl. oz./100 gallons. Use a lower rate during periods of hot weather.

Zestar!® - “is praised for its shelf life, not for its storage. This variety is also prone to drop. Red color development can sometimes be inadequate since temperatures tend to increase prior to and during harvest. Fortunately, this variety is sensitive to ReTain and a low rate, close to harvest, will help with maturity, especially for slowing starch degradation and reducing fruit drop.”

ReTain benefits **Zestar!** for Harvest Management and Fruit Quality/maturity Management

- Fruit drop reduction
- Ethylene reduction
- Increased firmness
- Delayed starch degradation

ReTain rate/Timing for **Zestar!**: ½ pouch per acre at 1-2 weeks before harvest. (No late or double rate program for this variety. It is an early variety and growers want to harvest it before the main varieties arrive on the market.) Recommended adjuvant: organosilicone surfactant at 6.4 to 12.8 fl. oz./100 gallons. Use a lower rate during periods of hot weather.

Guest article

No Guest article this week...

Facebook Me

No Facebook Me this week...

Useful links

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

[UMass Extension Fruit Team YouTube Channel](#)

[UMass Fruit Loop IPM Podcast](#)

[Scaffolds Fruit Journal \(1995-2020\)](#). With the retirement of Dr. Art Agnello from Cornell University, this publication has come to an end. See Peter Jentsch's blog below.

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>)

[Acimovic Lab at Hudson Valley](#)

[Peter Jentsch's Blog](#)

The next Healthy Fruit will be published on or about August 17, 2021. In the meantime, feel free to contact any of the UMass Fruit Team if you have any fruit-related production questions.

Thank you sponsors...



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