

Fruit IPM 05/06/14

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Peach

Oriental Fruit Moth (OFM): As of 5/4 we have accumulated 194 DD in southern counties. In northern counties 78 DD have accumulated. The first of two applications for OFM should have been applied between 5/2 and 5/4 in southern counties, however because most orchards have low populations and captures in commercial orchards did not begin until 4/26, there is plenty of time to apply the first insecticide.

Growers who wish to employ mating disruption for OFM can start placing dispensers at any time. The new Pacific Biocontrol Isomate-OFMTT (50-75 dispensers per acre, 100/acre under high populations) is a twin tube dispenser that lasts up to 180 days after placement in the trees. If using the Suterra Checkmate dispenser, the Checkmate OFM-SL (108 dispensers per acre) will last for about 150 days. Sprayable formulations (Checkmate OFM-F) can be applied starting for generations 2 through 4. Regardless of the mating disruption being used, remember that you must also control the other pests that are present at this time of year. This means treating for plum curculio, tarnished plant bug and native stink bugs. Tarnished plant bug and stink bug pressure should be very light if the groundcover is weed free. Many growers are including Avaunt in the petal insecticide mix. This material is good for PC, OFM and other early Leps (moth larvae), but not very strong for tarnished plant bug or native stink bugs. It like many other insecticides is toxic to bees, but unlike some insecticides, can be applied in the early evening after foraging has stopped. For more information on bees and insecticides see Dave Biddinger's article on the Penn State web site: <http://extension.psu.edu/plants/tree-fruit/commercial-tree-fruit-production/honeybees>

Green Peach Aphid (GPA): Aphid colonies have been found in beating tray samples. No blocks have populations which are above a treatment threshold at this time.

Thrips including western flower thrips: If thrips are found feeding shucks, include effective materials such as Delegate and Lannate. Carzol is still labeled at petal fall and is effective for thrips and cat-facing insects.

Plum Curculio (PC): PC adults usually begin egg laying once the fruit is out of the shuck. Dr. Anne Nielsen has reported feeding activity in her unsprayed plots at RAREC. Preferred materials that offer PC control are Actara, Avaunt, and Imidan. If using high rates of a neonicotinoid (i.e. Actara in this case), be aware that there is a synergistic effect when used in tank mixes with DMI materials (i.e. Rally) with regard to bee toxicity. This is another reason for maintain a clean ground cover with no flowering weeds in your orchard. If pyrethroids are being used, then high

rates are advisable, since low rates often do not control PC, especially in hot weather. Where PC is a problem, growers should rotate away from pyrethroid insecticides if possible. Avaunt or Imidan are the best choices at this time. Actara and Belay will not control OFM.

Native Stink Bugs and Other Catfacing Insects: These pests will become more of an issue as temperatures warm and mowing and other ground cover activities become more common. General spray timing at this time of year should still be targeted for **Oriental Fruit Moth and/or Plum Curculio (PC)**. Most materials, except the diamides (Altacor, Belt, Turismo) used for these pests will have some efficacy for plant bugs.

Apple

Apple Scab, Powdery Mildew (PM) and Cedar Apple Rust (CAR): Overwintering ascospores are now about 65 – 70% mature in southern counties as of 5/6-7, and about 63-68% mature in Hunterdon County. The wetting on 4/29-5/1 was a severe infection period. Scout for symptoms to evaluate control starting May 13.

Fire Blight: Blossom sprays using antibiotics should be applied anytime temperatures are 65° F or above and the relative humidity is 60% or above even where most bloom is over. Blocks of particular concern are Rome, Gala and other cultivars that have a propensity to produce “rat-tail” blooms after petal fall. Refer to the production guide for recommended materials and rates. Fire Blight is not modeled in the same way as scab. Heat units, tree phenology, dews, leaf wetness, cultivar, rootstock, and short or severe storms and/or hail all play a roll. Check the [NEWA](#) site for local predictions.

Plum Curculio (PC): See peach section above.

European apple Sawfly (EAS): EAS adults feed on pollen during bloom and lay eggs on fruitlets after petal fall. Control is usually not difficult except in years where bloom is prolonged or where varietal mixes make it difficult to make timely petal fall applications. Effective materials include Avaunt, Imidan, Assail, and Calypso. Pyrethroids are also effective but are not recommended on apples because they can flare mite populations. The key to EAS control is the timely application of petal fall insecticides. Do not apply insecticides until all petals are off. Open blossoms are now present in all NJ apple orchards. It is too late to apply prebloom insecticides for this pest, even in northern counties.

Pear

Pear Psylla: Nymphs are hatching and were seen this week in the central part of the state. DO NOT APPLY any insecticides while there is any bloom present or flowering weeds in the orchard. The best insecticides for pear psylla include: Actara, Danitol, Decis, and Warrior (all pyrethroids), and Delegate, and Movento. Do not use a pyrethroid if you have recently used this chemistry and had unsatisfactory results.

Scouting Calendar

The following table is intended as an aid for orchard scouting. It should *not* be used to time pesticide applications. Median dates for pest events and crop phenology are displayed. These dates are compiled from observations made since 1995 in Gloucester County. Events in northern New Jersey should occur 7-10 days later.

Pest Event or Growth Stage	Approximate Date	2014 Observed Date
1/4" Green Tip Red Delicious	March 27 +/- 10 Days	April 11
Tight Cluster Red Delicious	April 8 +/- 10 Days	April 17
Oriental Fruit Moth Biofix	April 8 +/- 10 Days	April 14
Pink Peach (Redhaven)	April 10 +/- 9 Days	April 13
Pink Apple (Red Delicious)	April 13 +/- 11 Days	April 24
Full Bloom Peach (Redhaven)	April 16 +/- 7 Days	April 21
Green Peach Aphid Observed	April 16 +/- 16 Days	May 1
Full Bloom Apple (Red Delicious)	April 20 +/- 9 Days	May 3
Petal Fall (Redhaven)	April 21 +/- 9 Days	May 2
Petal Fall (Red Delicious)	April 27 +/- 13 Days	Not yet observed
Shuck Split (Redhaven)	April 29 +/- 7 Days	Not yet observed
Tufted Apple Bud Moth Biofix	May 4 +/- 10 Days	Not yet observed
First PC Oviposition Scars Observed	May 5 +/- 16 Days	Not yet observed
Codling Moth Biofix	May 14 +/- 16 Days	Not yet observed

Blueberry:

Cranberry Weevil: Only a few cranberry weevil adults were seen late last week in about 20% of our samples. Since blueberries are in bloom, and the numbers were low, no treatments are needed (or permitted).

Leps., Other Leafrollers and Spanworms: Scouting done late last week showed no activity in the blossoms, and therefore no insecticides are justified.

Plum Curculio (PC): No PC activity was seen at the commercial sites that were scouted, although PC is active in some localized areas near wooded areas.

Trap Counts – Southern Counties

Wk Ending	STLM	TABM_A	CM	AM	OFM-A	DWB	OFM-P	TABM_P	LPTB	PTB
4/13					0		0			
4/20	14				5		0			
4/27	0				51		1			
5/3	19				51		1			

Tree Fruit Trap Counts – Northern Counties

Wk Ending	STLM	TABM-A	CM	AM	OFM-A	DWB	OBLR	OFM-P	TABM-P	LPTB	PTB
4/13	1										
4/20	2							0			
4/27	71.5		0					1.1			
5/3	41		0.0		3.5			1.3			