

Fruit IPM Report Apr 29, 2014

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This week in Fruit IPM

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Peach

Brown Rot: [Unchanged from last week] Blossom infections from the brown rot fungus can occur whenever pistils are exposed and a favorable climate exists. Infections can occur during any wetting period when temperatures are between 41 and 86°F. However optimum conditions (See [WVU Kearneysville, Brown Rot of Peach and Nectarine](#)) for infection occur with *wetting and temperatures in the mid 70's*. During long wetting periods (several days or more) blossoms can be infected regardless of temperature. Generally infections that occur when conditions are sub optimal are less severe. Blossoms and fruitlets will remain susceptible until the pistil desiccates (sometime between petal fall and shuck split).

Petal Fall Insect Complex: An OFM biofix was set for April 14 at the research station at Centerton. Trap captures in commercial orchards only began over the weekend, so low population orchards will have plenty of time to wait until all the bloom is off before applying petal fall insecticides. Treatments for the first flight will be due at 170-200 degree days after the first trap captures or "biofix." This timing usually coincides with late petal fall to shuck split. We have accumulated 112 degree days since 4/14.

Avaunt is one of the better materials for plum curculio (PC) at this time, and also covers Oriental fruit moth and tarnished plant bug. Any covers that include Imidan will also do a good job with PC. While the synthetic pyrethroids (Asana, Ambush/Pounce, Warrior, Baythroid) are rated for control of petal fall insect pests, experience has shown that the pyrethroids may be weak at lower rates against plum curculio (PC), especially in hot weather. If using any pyrethroids (Ambush, Asana, Baythroid, Danitol, Perm-Up, Pounce, Warrior, Lambda-Cy, or any of the other generics), use a high rate in order to control both OFM and PC. Endigo, a premix for stone fruit; contains the active ingredients for warrior and actara and is a good choice around shuck split for the entire insect complex. Rotate pyrethroids (IRAC group 3) and O.P.'s (IRAC group 1B) with different chemistries for resistance management (see IRAC groups below).

The key arthropod targets at petal fall are **OFM, PC and various catfacing insects, primarily tarnished plant bug and native stinkbugs.**

Rusty Spot: An effective material should be included at petal fall on rusty spot sensitive varieties. Rally at 2.5 – 5 ozs./acre is the standard, however other effective materials include Gem, Topsin-M, and Quadris Top when used at the higher rates. Both Gem and Quadris top will control all diseases at petal fall.

Apple

Diseases: **Apple Scab, Powdery Mildew, Cedar Apple Rust,** are diseases of concern at this time.

The wetting conditions due Tuesday 4/29 through Thursday 5/1 **should produce a severe scab infection period.** The NEWA scab models are predicting 79-83% ascospore maturity during this period in southern NJ and 26-36% maturity in Hunterdon County. Any way you cut it, this will be a severe infection period. Primary apple scab spores are released during any substantial wetting and infection period. Make sure you are well covered. Cedar apple rust infections can occur anytime between pink and 3rd cover. The DMI fungicides Rally, Procure, and Indar are standard scab, rust, and mildew materials. The premix Inspire Super contains a DMI fungicide premixed with an AP. Rotate the DMI's with different chemistries such as: Vanguard or Scala (AP); Fontellis (SDHI); Luna Sensation, or Merivon (SDHI + Qol); and Luna Tranquility (AP+SDHI).

More information can be found in our recent blog post ([Apple Scab Alert](#)) and on Dr. Dave Rosenberger's blog ([Scab Warning | Plant Pathology at the Hudson Valley Lab](#)). While it may not be necessary to combine the premixed products with a protectant such as Manzate, doing so will provide an extra layer of resistance management, as well as improve rust control. Watch the amount of green tissue that is showing. If you are barely at green tip, as on some varieties in northern counties, then infection periods will not be as severe. If you are at pink to bloom, then infection periods will be more severe.

Fire Blight: The first blossoms opened in southern counties on April 11. From a calendar perspective, blossom sprays using Streptomycin should be applied on a 3-7 day schedule or anytime temperatures are 65° F or above and the relative humidity is 60% or

above. Mycoshield now has a supplemental label allowing use on apples. Rotations of Streptomycin and Oxytetracycline will help manage resistance.

Pear

Pear Psylla: Pear Psylla nymphs are still hatching in southern counties, but only eggs are present in northern counties. Nymphs will feed on developing clusters through bloom. The best option for control at popcorn is Surround @ 25-50#/ac. Esteem may also be used through bloom.

Fire Blight: Fire blight conditions will be favorable for later this week. See apple section above.

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	Not yet observed
Oriental Fruit Moth – 175 DD target	April 19 +/- 12 Days	Not yet observed
Full Bloom Apple (Red Delicious)	April 20 +/- 9 Days	Not yet observed
Petal Fall (Redhaven)	April 21 +/- 9 Days	Not yet observed
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
Plum Curculio Oviposition Begins	May 5 +/- 16 Days	Not yet observed
Oriental Fruit Moth – 375 DD target	May 10 +/- 10 Days	Not yet observed
Codling Moth Biofix	May 14 +/- 16 Days	Not yet observed

Trap Counts – Southern Counties

WEEK ENDING	STLM	TABM-A	CM	AM	OFM-A	DWB	OFM-P	TABM-P	LPTB	PTB
4/19	0				0		0			
4/26	37				13		0			

Trap Counts – Northern Counties

WEEK ENDING	STLM	TABM-A	CM	AM	OFM-A	DWB	OBLR	OFM-P	TABM-P	LPTB	PTB
4/12	0										
4/19	3										
4/26	44				0			0			