

Fruit IPM
5/20/14

Peach

Bacterial Spot: Symptoms are now appearing on leaves from an infection that occurred about two weeks ago. So far very little infected orchards have been noted in southern counties. Growers should maintain aggressive coverage around rains. Friday's weather was very conducive for infection. Additional leaf symptoms should appear by the weekend and fruit symptoms should appear in about 3 weeks.

Tufted Apple Budmoth (TABM): Timings for TABM control are outlined below. This is now a minor pest, due to its increased control over the last 6-7 years. However, if you are a grower who did have TABM damage last year, you are advised to use the timings that follow:

	Conventional, Diamides	Conventional, Diamides	Intrepid, Rimon	Bt
County Area	AM	EM	EM	EM
Southern	1 st about 6/4-6; 2 nd 6/8-9	1 st about 6/7-6/9	1 st about 6/6-6/12	1 st about 6/9-6/11
Northern	Too early to predict	Too early to predict	Too early to predict	Too early to predict

Oriental Fruit Moth (OFM): We are in between generations in southern counties, and at the timing for the second of 2 treatments in northern counties. In southern counties it is a good time to start scouting orchards for signs of shoot flagging. Infested shoots will look wilted and will bleed from the entry point (see photo). Growers with trap captures above 6/trap should maintain coverage with effective materials. Some growers in northern counties have close to 150 moths per trap. This is a **Very High population**, and justifies checking your coverage, timing and the types of materials you are using.

First Generation OFM Timing Dates				
County/Region	Degree Days by 5/20 base 45	Insecticide Type		
		Conventional	Intrepid / IGRs	Diamides
Gloucester - Southern	478	1 st – Past 2 nd – Past	Not Rec.	1 st – Past 2 nd – Past
Hunterdon - Northern	307	1 st – Past 2 nd – 5/23-24	Not Rec.	1 st – Past 2 nd – 5/20-21



Larval flagging and bleeding on developing shoot from 1st generation oriental fruit moth.

Green Peach Aphid: Some individual farms have populations above treatment thresholds. Any registered neonicotinoid insecticide (Actara, Assail, Belay, Admire Pro (IRAC 4A) or Closer (IRAC 4C), or premixes – Leverage, Voliam-Flexi) will control these populations. Admire Pro will control aphids only. Beleaf (IRAC 9C) will also target aphids and control tarnished plant bug. Movento (IRAC 23) will control aphids and scale insects.

Rusty Spot: Early symptoms should be visible soon. Maintain control measures until about pit hardening. This is another area where having flowering weeds in your ground cover is a bad thing. Rally is used to control rusty spot, but if combined with a neonicotinoid insecticide for aphids or scale, you have a toxic combination for bees. If you have a weedy ground cover and use a neonic, then consider using one of the biorationals (Armicarb; Kaligreen; Serenade) in place of Rally to minimize impact on bees.

Peach Scab: It's too early to see peach scab symptoms but it's important to maintain control measures until about the middle of July, especially where scab was present last year.

Plum Curculio (PC): We are entering the peak of PC activity in all areas of the state. Moderate levels of injury were seen in both stone and pome fruit over the past week, even where effective insecticides were applied. In northern counties high adult activity was observed. Up to 8 adults were collected by beating trays in 10 tree samples. If insecticide applications were followed by significant rains, then re-cover with effective materials after an inch or more of precipitation.

Apple

Codling Moth (CM): The following chart updates application timings for southern northern counties. Overall, trap counts are low, but a few sites still show high populations as indicated by trap captures. Up to 20-49 moths per trap are being seen on some farms, particularly in the northwestern part of the state. When we remember that 5 moths per trap is considered a treatment threshold (after timed sprays), then these farms have very high populations. Traps are important if for no other reason, than to give you an indication of relative insect pressure BEFORE damage occurs. If you have treated and still have these types of numbers, then check your coverage and timing, and/or change to another type of chemistry. Under high insect pressure, we have had good results with alternative controls like repeated use of granulosis virus (Carpovirusine) combined with mating disruption. At minimum, if growers are using OP's then switch to a diamide (Altacor/Belt or premixes), or Delegate.

Codling Moth Degree Day Timing								
County Area	Application and Insecticide Type							
	Rimon: 75-100DD + 14-17 days later Intrepid: 150 + 450 DD	Intrepid 150 + 450 DD		Diamides - Altacor, Voliam mixes: (150- 200 DD) + 14-21 days later		Cyd-X, Carpovirusine 250 DD + every 7-9 days during brood hatch (later if first spray is an IGR)		Standard Insecticides, Diamides – Belt, Tourismo 250 DD + 550 DD
DD	50	100	150	150	450	250	250	550
Southern	Past	Past	Past	Past	6/5	5/23	5/23	6/4
Northern	Past	Past	Past	Past	6/13-14	5/30-31	5/30-31	6/19-20

Tufted Apple Budmoth (TABM): See peach section.

Apple Scab and Powdery Mildew: Scab symptoms are present in a few blocks in southern and northern counties. By the NEWA model, primary scab season should be almost finished.

Pear

Pear Psylla: First generation adults are just beginning to appear on shoots and egg laying has begun in all counties. Eggs have also started to hatch in some locations. If you are planning to apply Movento, carefully monitor for [eggs](#) along the midribs of leaves near the tops of shoots. Bias sampling toward the tops of trees. Ideally, make the application before the most eggs hatch (see scouting calendar) since Movento needs about a week to become fully systemic. Other options for control include Agri-mek, Assail, Actara, and Delegate. Portal and Nexter are also effective but are better saved for summer treatments if needed. Follow the Agri-mek label instructions for adding adjuvants. The efficacy of Assail, Actara and Delegate can be improved by the addition of 1 qt. summer spray oil. Be careful when applying oil to Asian varieties.

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 over the past 5-10 years 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	May 11
Shuck Split (Redhaven)	April 29 +/- 7 Days	May 11
Tufted Apple Bud Moth Biofix	May 4 +/- 10 Days	May 11
Second generation Pear Psylla Hatch	May 29 +/- 3 Days	Not yet observed

Blueberry

Plum Curculio (PC): Very little PC were found in beating tray samples last week in our sampling. Out of 16 farm sites, one site had adult PC activity of 3 active adults per bush. We are in the peak period of PC activity in tree fruit, so additional activity in blueberries is expected to follow. PC should be one of the main insect targets when growers remove bees late this week and early next week.

Aphids: Very few aphids were seen this past week. About 18% of samples showed some aphids, but in very small colonies.

Putnam Scale: No activity has been noted as of 5/20.

Leafrollers and Other Leps: We are still seeing low levels of worms in beating trays samples, but only in about 5% of sample sites.

Cranberry Weevil (CBW): Adult activity has stopped for the most part. We did see a few adults in beating tray samples over the last week.

Cranberry Fruitworm (CBFW): Traps have been set, and the first trap captures have been seen, but only at 1 moth per trap at 1 site. There will be more about the timing and treatment for this pest over the next couple of weeks.

Thrips: Some thrips were seen again over the past week, but only in 11% of our samples. In those sites that did have thrips, populations were very light, with only 2 thrips per 100 blossom clusters. This fits the degree day model, which is showing that even 10% emergence is not expected over the next 6 days. Since this will be past the pollination period, thrips **should not** be a problem this year.

Tree Fruit Trap Counts – Southern Counties

Week 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			
5/10	41	0	3		36		5	0		
5/17	21	2	12		15		6	4	27	

Tree Fruit Trap Counts – Northern Counties

Week 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			
5/10	91.5	0.0	0.0		31			18.2	0.0	0.0	
5/17	67.5	0.0	4.5		57.7			21.4	0.0	0.0	