

Fruit IPM for the Week of 5/27/13

Dean Polk, David Schmitt, Gene Rizio and Atanas Atanassov

Peach

Plum Curculio (PC): PC activity is coming to an end. The model we use calls for the last PC targeted insecticide applied 350 DD base 50 after apple (Mac) petal fall. In most NJ counties this will fall around June 1-2. This date does not represent the end of egg laying, but rather the last date that targeted insecticides need to be applied, counting on the forward action of the last insecticide application covering the very last of PC activity. This model was developed in apples and appears to be very close in stone fruit, but has not been validated in peaches in southern counties. Fresh feeding and eggs were seen (in cherries) in southern counties and fresh eggs were seen late last week in Morris County apples.

San Jose Scale (SJS): Scale crawlers usually emerge about the first week of June. Treatment options include Esteem, Movento, Centaur, and Diazinon. Esteem and Movento should be applied at the beginning of crawler emergence, Centaur should be applied at peak crawler activity (usually 2-3 weeks after first emergence). The newly labeled Closer, will suppress scale populations when used for aphids, but should not be used as the only control. Diazinon is labeled for one in-season application on stone fruit (4#/acre of the 50W limit) and two in season applications on apple. On apple, the diazinon label lists a dormant to delayed dormant application for scale and a foliar application for woolly apple aphid. The in-season foliar applications may cause russet, but have worked in the field for scale crawlers as long as applications are made 1-2 weeks after the start of crawler emergence and again 2 weeks later. Actara now has a supplemental label for San Jose Scale suppression on apple. Field experience has indicated good efficacy against scale crawlers.

Thrips: Thrips are now building up in weedy groundcovers and in hedgerows with flowering shrubs. Thrips can move onto ripening peaches and nectarines, especially in dry years. If your farm has a history of thrips problems, then you should be aware of this pest. Looking ahead, if you are treating for other pests, you can try to 'double up' on the effectiveness of insecticides, by choosing materials that also control thrips. If you are treating for TABM and OFM and you need to control thrips, then Delegate @ 7 ozs will control this complex. Lannate is another choice, but not quite as effective. However, Delegate has no effect on BMSB, whereas Lannate has shown short term effectiveness. Closer also provides thrips suppression but not control.

Anthracnose: Wet seasons are favorable for anthracnose infections. This is a disease we rarely have a problem with, but it has been showing up on a more frequent basis. We do not yet know what the season will bring, but the varieties Klondike, Harrow Beauty, Snow Giant, and Sugar Giant seem to be particularly susceptible. Growers may find it useful to protect against anthracnose, especially in blocks that have a history of the disease. For all practical purposes this means avoiding the use of sulfur in those blocks, and substituting Captan (2.5# 80W; 4# 50W) for the next several weeks. Ziram @4.5-8#/ac is also effective. Materials containing strobilurins (Pristine, Gem, Luna Sensation, Merivon) should be effective.

Oriental Fruit Moth (OFM): The 2 treatment timings for oriental fruit moth are over in all counties. We are between generations, so the only additional insecticides that are needed should be applied only if trap counts exceed 6-8 males per trap

Tufted Apple Budmoth (TABM): Timings for TABM control are outlined below. 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 – 4 Alt Mid Sprays	EM – 2 Complete Sprays	EM – 2 Complete Sprays	EM - 2 Complete Sprays
Southern	1 st about 6/3-4; 2 nd 6/7-8	1 st 6/5-6/8	1 st 6/4-6/9	1 st 6/8-6/9
Northern	1 st about 6/10-11	Too far off	Too far off	Too far off

Apple

Codling Moth (CM): The following chart updates application timings for southern and northern counties. Overall, trap counts are low, but a few sites still show populations above treatment levels, even though 2 timed treatments may have already been applied. Several farms in northern counties are showing trap averages ranging from 28-38 moths per trap. This is very high pest pressure, and alternative controls need to be applied as outlined in previous newsletters.

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	6/2-3	Past	Past	6/8-10
Northern	Past	Past	Past	Past	6/6-8	Past	Past	6/11-13

European Apple Sawfly (EAS): The first EAS damage was seen last week in Middlesex and Morris Counties. Only minimal damage is present, but levels are at 3% damaged fruit at one site where the petal fall treatment was applied too late. Effective materials include most pyrethroids, Assail, Avaunt, Calypso, and Imidan. Under the EPA Existing Stocks Order, Guthion may be used on apples, pears, blueberries, cherries and parsley until September 30 of 2013 only.

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. However, if you missed any early fungicide sprays or have the beginnings of scab infections, be aware that continued wetting periods can cause further infections, and that continued coverage is needed in these events.

Fire Blight: The shoot blight phase of the disease is present in some locations at very low levels. A good online reference is the UMASS Fact Sheet on [fire blight control](#).

Pear

Pear Psylla: Psylla Nymphs are now hatching. Delegate is one of the best options for control at this time. Other materials include several of the neonicotinoid products including Actara, Assail and Belay, and the pyrethroids. Movento also works well, but may take a little more time and 2 applications. Remember to rotate materials to help prevent resistance.

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	2013 Observed Date
Full Bloom Peach (Redhaven)	April 16 +/- 7 Days	April 11
1/4" Green Tip Red Delicious	March 27 +/- 10 Days	March 29
Oriental Fruit Moth Biofix	April 8 +/- 10 Days	April 16
Oriental Fruit Moth – 170 DD target	April 19 +/- 12 Days	May 2
Full Bloom Apple (Red Delicious)	April 20 +/- 9 Days	May 1
Petal Fall (Red Delicious)	April 27 +/- 13 Days	May 9
Shuck Split (Redhaven)	April 29 +/- 7 Days	May 8
Tufted Apple Bud Moth Biofix	May 4 +/- 10 Days	May 13
Plum Curculio Oviposition Begins	May 5 +/- 16 Days	May 6
Oriental Fruit Moth – 375 DD target	May 10 +/- 10 Days	May 17
Codling Moth Biofix	May 14 +/- 16 Days	May 5
Rusty Spot Symptoms	May 24 +/- 10 Days	May 17
White Peach Scale Crawler Emergence	May 29 +/- 7 Days	Not yet observed
Second Generation Pear Psylla Hatch	May 29 +/- 3 Days	May 27
SJS Crawlers-first generation	June 6 +/- 4 Days	Not yet observed
Pit Hardening	June 19 +/- 5 Days	Not yet observed

Blueberry

Plum Curculio (PC): About 4% of beating tray samples have been positive for PC adults. This is a decrease in our adult catch since last report but our field fruit samples suggest that this pest has been very active laying eggs in berries and to a lesser extent feeding on green fruit. Data for week ending 5/26 shows that 38% of fruit samples had some level of injury (at least 1 berry in 1000 injured) and 14% of samples are above the 1% injury level (10 or more berries injured in 1000). The highest level of injury seen was just over 2% of fruit injured. This site is in Atlantic County and also was one of our most injured areas over the past 2 seasons.

Aphids: Sampling shows that 70% of shoot samples are positive for aphids, while we are now seeing a gradual increase in colony size. There is slightly more reproduction than during the previous week. Last week we saw 10% of samples above 10% shoots infested, while this week we are observing 16% of samples above the 10% shoot infestation level.

Spotted Wing Drosophila (SWD): Four different types of traps were placed in 15 locations last week and monitored early this week. No SWD adults have been captured in these traps as of this writing.

Thrips: We are no longer seeing thrips in beating tray samples. However, low numbers of thrips are showing up in few locations on the bushes on the undersides of leaves near shoot terminals. This is not unusual and does not pose a problem or justify treatment.

Leafrollers and Other Leps: The results of all beating tray samples for worm larvae is unchanged since the last newsletter, or under 1% positive samples. However, the presence of larvae in developing shoots has increased some. No fields have over 5% of shoots infested, but various species are present. Green Fruitworm as well as some leafrollers are present, but overall this is a minor pest target.

Cranberry Fruitworm (CBFW): In most areas trap captures have remained low, having increased some in Burlington County. We are approaching the normal time of year when single spray controls are applied for this pest. So far, we see fairly low pest pressure from this insect.

Botrytis: Some disease symptoms have been seen at a few sites. **Scorch** symptoms have also been noted in several Duke plantings.

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			
5/4	4	0	0		83		4	0		
5/11	3	1	27		17		2	0		
5/18	5	2	12		28		5	3	28	
5/25	1	16	17		23		5	15	38	

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			
5/4	74		0					9.3	0		
5/11	87		1.3		29.4			14.1	0		
5/18	41	0	3.9		36			9.4	0	0	0
5/25	33.2	8.9	6.6		12.2			10.3	5.3	17.5	0

Blueberry Insect Trap Counts - Atlantic County

Week Ending	RBLR	CBFW	OBLR	SNLH	Or. Beetle	BBM	BMSB
4/13	116						
4/20	120						
4/27	100						
5/4	72	0					
5/11	28	0.01					
5/18	12.4	0.15					
5/25	3.1	0.1					

Blueberry Insect Trap Counts - Burlington County

Week Ending	RBLR	CBFW	OBLR	SNLH	Or. Beetle	BBM	BMSB
4/13	71						
4/20	44						
4/27	38						
5/4	26	0					
5/11	9	0					
5/18	1	0.04					
5/25	2	0.13					