



Tree Fruit IPM Advisory: July 18th, 2006

Past IPM advisories are archived at:

<http://extension.usu.edu/cooperative/ipm/index.cfm/cid.610/>

*******Insect Advisory*******

CODLING MOTH (Apple and Pear): Larval emergence (i.e., egg hatch) of the 2nd generation is underway in all northern Utah monitoring sites, except North Logan. Egg hatch began today in Logan and will begin tomorrow in North Logan (Cache County). The optimal timing to prevent fruit injury from 2nd generation codling moth is/was at 1% egg hatch. **The next critical period for codling moth control is between 1380 to 1780 Degree-Days (DD). This is the steepest portion of the egg hatch curve and corresponds to when 18-79% of egg hatch is completed for this generation. The warmer locations have already entered this period. This period will last for approximately 12-16 days. Keep fruit protected from injury by reapplying insecticides based on the chemical protection interval.** For those orchards using mating disruption, use your pheromone trap catch numbers to guide whether a full cover or border spray is prudent, and be especially cautious during this rapid egg hatch period.

The codling moth model is predicting a 3rd generation for northern Utah sites except Cache County, Alpine, and West Mountain.

Insecticides effective for codling moth in commercial orchards include Intrepid, Calypso, Assail, Esteem, Guthion, Imidan, Danitol, codling moth granulosis virus, and horticultural mineral oil. Homeowners can find a list of effective insecticides in the Utah Home Orchard Pest Management Guide:

<http://extension.usu.edu/files/publications/homeorchard20061.pdf>.

Summary of Codling Moth Degree-Days and Projected Onset and End of 2nd Generation Larval Emergence

	<u>DDs Since Biofix</u>	<u>% Moth Flight of 2nd Gen[^].</u>	<u>% Egg Hatch of 2nd Gen.^{^^}</u>	<u>Projected Onset of 2nd Gen.*</u>	<u>Projected End of 2nd Gen.**</u>
Box Elder County					
Perry	1486	73%	33%	Jul 4	Aug 11

Cache County						
Logan	1124	15%	1%	Jul 18	Sep 7	
North Logan	1088	12%	0%	Jul 19	Sep 9	
Davis County						
Kaysville	1368	54%	17%	Jul 8	Aug 16	
Salt Lake County						
Salt Lake City	1556	81%	46%	Jul 2	Aug 7	
Tooele County						
Tooele	1497	77%	36%	Jul 1	Aug 12	
Utah County						
Alpine	1201	26%	3%	Jul 13	Aug 25	
Genola	1382	56%	18%	Jul 6	Aug 18	
Payson	1334	48%	13%	Jul 8	Aug 19	
Provo (bench)	1363	53%	16%	Jul 8	Aug 16	
Santaquin	1357	53%	16%	Jul 7	Aug 18	
West Mountain	1218	29%	4%	Jul 12	Aug 30	

^ The percentage of 2nd generation adult moths that have emerged.

^^ The percentage of 2nd generation eggs that have hatched.

* Projected onset of 2nd generation = 1% egg hatch.

** Projected end of 2nd generation =99% egg hatch completed.

Also, you can go to the “Orchard Spray Timing” tables posted on the IPM website to track the rate of codling moth development for your area:
<http://extension.usu.edu/cooperative/ipm/index.cfm/cid.645/>. Select 2nd Generation CM in the right column and then the most recent date

PEACH TWIG BORER (Peach, Nectarine, and Apricot): Egg hatch of the 2nd generation ranges from 1 to 30% in northern Utah monitoring sites. Application of insecticides to protect fruit is recommended to begin at 5% egg hatch. All sites except Alpine have reached this deadline. Onset of cover sprays for Alpine is predicted for Friday. See the summary table for peach twig borer spray dates below.

Summary of Peach Twig Borer Degree-Days and Projected Onset and End of 2nd Generation Larval Emergence

	<u>DDs Since Biofix</u>	<u>% Moth Flight of 2nd Gen[^].</u>	<u>% Egg Hatch of 2nd Gen.^{^^}</u>	<u>Projected Onset of 2nd Gen.*</u>	<u>Projected End of 2nd Gen.**</u>
Box Elder County					
Perry	1337	78%	23%	Jul 13	Aug 6
Davis County					
Kaysville	1241	56%	8%	Jul 17	Aug 11

Utah County					
Alpine	1094	21%	1%	Jul 21	Aug 18
Genola	1306	71%	17%	Jul 13	Aug 8
Lincoln Point	1229	53%	7%	Jul 16	Aug 12
Payson	1271	64%	12%	Jul 16	Aug 11
Provo (bench)	1372	83%	30%	Jul 11	Aug 6

^ The percentage of 2nd generation adult moths that have emerged.

^^ The percentage of 2nd generation eggs that have hatched.

* Projected onset of 2nd generation = 5% egg hatch.

** Projected end of 2nd generation =99% egg hatch completed.

Also, you can go to the “Orchard Spray Timing” tables posted on the IPM website to track the rate of PTB development for your area: <http://extension.usu.edu/cooperative/ipm/index.cfm/cid.645/>. Select 2nd Generation PTB in the right column and then the most recent date

Insecticides effective for preventing twig borer larvae in fruit include Success, Intrepid, Imidan, and Thionex. Pyrethroid insecticides (Asana, Pounce, Ambush) should be avoided at this time of year as they are harsh on predatory mites that provide biological control of spider mites. Scout orchards for shoot strikes caused by 1st generation PTB and prune these out to remove pupating larvae and emerging adults.

WESTERN CHERRY FRUIT FLY (Sweet and tart cherry): Western cherry fruit fly adults continue to be caught in traps in cherry orchards throughout northern Utah. Keep fruit protected through harvest. Insecticides with short preharvest intervals (PHIs) should be used as fruit nears harvest (insecticides and PHIs): GF-120 (4 hr), Sevin (3 days), malathion (1 or 3 days depending on product), Ambush and Pounce (3 days), Success and Entrust (7 days), Provado (7 days), and Imidan on tart cherries (7 days). Sevin, malathion, Ambush, Pounce, and Provado can flare spider mites, so limit use of these insecticides when temperatures rise above 85°F because spider mites reproduce rapidly under hot conditions.

SPIDER MITES (All tree fruits): Hot, dry conditions spur spider mite reproduction. Scout weekly to keep a watch on build-up of spider mite numbers. Also scout for the orchard predatory mite. A ratio of 1 predator to 10 spider mites (or 1:5 for pear) is usually adequate to keep spider mite numbers below economic levels. For more information on pest and beneficial mites: <http://extension.usu.edu/files/gardpubs/6.pdf>.

Miticides Registered on Tree Fruits in Utah, 2006

Brand Name	Pre-Harvest Intervals in Days (unless otherwise indicated)			
	Apple/Pear PHI	Tart Cherry PHI	Sweet Cherry PHI	Peach PHI
Acramite	7	3 (2006 Sec. 18)	--	3
Agri-Mek	28	--	--	--
Apollo	45/21	21	21	21

Envidor	7	7	7	7
FujiMite	14	--	--	--
Kelthane	7	--	--	--
M-Pede	12 hr	12 hr	12 hr	12 hr
Pyramite, Nexter 25/7		300	300	7
Savey	28	28	28	28
Vendex	14	14	14	14
Zeal	28	--	--	--

GREATER PEACHTREE BORER (Peach, Nectarine, Apricot): No trap catch has been reported. In areas where mating disruption has been used for numerous years (i.e., Kaysville Research Farm), the population has dropped below detectable levels. If orchards have a history of GPTB (crown borer) injury to the base of trunks, apply Isomate-P mating disruption dispensers (Pacific Biocontrol Inc.) or spray lower trunks, crotches, and ground around trees with handgun-applied Lorsban or Thionex. In past years, first GPTB moths were caught in late June and treatments should be applied by early July. If using Thionex, a second application may be needed 4 weeks later.

USU Extension and its employees are not responsible for the use, misuse, or damage caused by application or misapplication of products or information mentioned, and make no endorsement explicitly or implicitly of the products or information listed herein