Tree Fruit IPM Advisory: July 11th, 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 most northern Utah monitoring sites. Egg hatch will begin this week in West Mountain and Alpine in Utah County and next week in Logan and North Logan in Cache County. The optimal timing to prevent fruit injury from 2nd generation codling moth is at 1% egg hatch. See the summary table for codling moth development below and for projected onset (1% egg hatch) and end (99% egg hatch) dates for 2nd generation in northern Utah. Keep fruit protected from injury by reapplying insecticides as needed based on the chemical protection interval. For those orchards using mating disruption, use your pheromone trap catch numbers to guide whether a cover or border spray is prudent.

Scout apple and pear orchards now to assess percentage fruit injury from 1st generation codling moth. If you observe greater than 2-3% fruit injury now, be prepared for a much larger 2nd generation. If this is the case, be especially vigilant in keeping your fruit covered with effective insecticides through harvest.

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

DDs Since Biofix	% Moth Flight of 2nd Gen^.	% Egg Hatch of 2nd Gen.^^	Projected Onset of 2nd Gen.*	Projected End of 2nd Gen.**

Box Elder County					
Perry	1265	37%	7%	Jul 4	Aug 12
Cache County					
Logan	941	2%	0%	Jul 19	Sep 7
North Logan	912	1%	0%	Jul 21	Sep 9
Davis County					
Kaysville	1148	19%	2%	Jul 8	Aug 17
Salt Lake County					
Salt Lake City	1312	44%	10%	Jul 2	Aug 8
Utah County					
Alpine	1009	5%	0%	Jul 13	Aug 25
Genola	1185	24%	3%	Jul 6	Aug 17
Payson	1136	17%	1%	Jul 8	Aug 19
Provo (bench)	1150	19%	2%	Jul 8	Aug 17
Santaquin	1144	18%	2%	Jul 7	Aug 18
West Mountain	1036	7%	0%	Jul 12	Aug 27

^ 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): Adult moths from the 2nd generation are beginning to emerge and egg hatch is just beginning in warmer monitoring sites. Application of insecticides to protect fruit is recommended at 5% egg hatch. Provo has reached this deadline today, Perry and Genola on Thursday, Lincoln Point and Payson on Sunday, Kaysville on Monday, and Alpine on next 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

	DDs Since Biofix	% Moth Flight of 2nd Gen^.	% Egg Hatch of 2nd Gen.^^	Projected Onset of 2nd Gen.*	Projected End of 2nd Gen.**
Box Elder County					
Perry	1116	26%	1%	Jul 13	Aug 7
Davis County					
Kaysville	1021	10%	0%	Jul 17	Aug 11

Utah County					
Alpine	902	2%	0%	Jul 21	Aug 18
Genola	1110	25%	1%	Jul 13	Aug 8
Lincoln Point	1037	12%	0%	Jul 16	Aug 11
Payson	1073	18%	0%	Jul 16	Aug 11
Provo (bench)	1158	35%	3%	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. Adult emergence generally peaks just before or at cherry harvest. Cherry fruits are now highly susceptible to egg-laying by female flies. 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, Ambush and Pounce-3 days, Success and Entrust-7 days, Provado-7 days, and Imidan on tart cherries-7 days. Sevin, Ambush, Pounce, and Provado can flare spider mites, so limit use of these insecticides when temperatures rise above 85ºF because spider mites reproduce rapidly under hot conditions.

WOOLLY APPLE APHID (Apple): This aphid produces an abundance of white wax on its body and clusters of aphids can appear as "wool" on the limbs of infested apple trees. This aphid produces abundant honeydew (sticky liquid) that can coat the leaves, limbs, and fruit. Feeding on twigs will cause swellings or galls and lead to limb dieback. Woolly apple aphid may be especially common in orchards that are using mating disruption for codling moth or other lower toxicity insecticide programs. Insecticides that are effective for this aphid include Guthion, Thionex, Diazinon, and Dimethoate. Add 0.5% v/v horticultural mineral oil to the spray solution to improve penetration of their waxy coating.

SPIDER MITES (All tree fruits): Hot, dry conditions spur spider mite reproduction. In recent orchard surveys, most orchards do not have economically damaging populations

of spider mites, but leaf bronzing or mite burn was observed in a few apple orchards. Use of horticultural mineral oil with cover sprays in early to mid summer can help suppress mite population increase. 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

	Pre-Harvest Intervals in Days (unless otherwise indicated)			
Brand Name	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.