



## Tree Fruit IPM Advisory: August 30th, 2006

Past IPM advisories are archived at:

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

Note: Please let us know by replying to this email if you see any fruit tree pest problems not covered in this advisory or if you need more information on a topic. Diane

### !EXOTIC PEST ALERT!

Over 500 Japanese Beetle adults have been trapped since mid July, 2006, in an approx. ¼ mile square area in Orem, Utah Co. The Japanese Beetle can be a highly destructive pest to ornamentals, trees, shrubs, and turfgrass. First discovered in the eastern U.S. in 1916, the Japanese Beetle has slowly moved south and west. This population is the first detected in Utah. Fruit trees, especially apple, are preferred food hosts for adults. The Utah Department of Agriculture and Food has an active Japanese Beetle detection survey underway. You can learn more about this new pest to Utah at the UDAF web site (<http://www.ag.state.ut.us/>) and by reading a new USU fact sheet at:

<http://extension.usu.edu/cooperative/ipm/files/PDFDocs/japanese%20beetle%202006.pdf>.

### \*\*\*\*\*Insect Advisory\*\*\*\*\*

**CODLING MOTH (Apple and Pear):** Completion of egg hatch of the 3<sup>rd</sup> generation is  $\geq 7\%$  in all sites where a 3<sup>rd</sup> generation will occur in northern Utah (see CM table below). Our model predictions for 3<sup>rd</sup> generation end at 2320 Degree-Days (DDs), so we are unable to provide you with more specific egg hatch percentages beyond this point other than  $>10\%$  egg hatch completed. There will not be a 3<sup>rd</sup> generation in Alpine and West Mountain in Utah Co. or in Cache Co. sites.

For sites with a 3<sup>rd</sup> generation, keep apple and pear fruit protected through Sep 15 or harvest whichever comes first. After Sep 15, emergence of codling moth larvae from eggs should be completed for the season. For sites without a 3<sup>rd</sup> generation, fruit should remain protected through the end date of larval emergence for the 2<sup>nd</sup> generation (see CM table below). Harvest dates of apples and pears and preharvest intervals of insecticides (PHI: required interval between last application and picking fruit) need to be considered when applying late season insecticides.

Insecticides effective for codling moth in commercial orchards and recommended near harvest include Assail (7 d PHI), Imidan (7 d PHI), Intrepid (14 d PHI), and codling moth granulosis virus (see label). PHIs for Guthion and Calypso are 21 d and 30 d, respectively, so they may not be a good fit for late season control. Homeowners can find a list of effective insecticides in the Utah Home Orchard Pest Management Guide: <http://extension.usu.edu/files/publications/homeorchard20061.pdf>.

Codling Moth (CM) Phenology Table

	DDs Since <u>Biofix</u>	Projected End of 2 <sup>nd</sup> Gen.*	Projected Onset of 3 <sup>rd</sup> Gen.**	% Egg Hatch of 3 <sup>rd</sup> Gen.^
Box Elder County				
Perry	2525	Aug 10	Aug 11	>10%
Cache County				
Logan	1977	Sep 8	--	--
North Logan	1906	Sep 10	--	--
Davis County				
Kaysville	2393	Aug 15	Aug 17	>10%
Salt Lake County				
Salt Lake City	2640	Aug 5	Aug 6	>10%
Tooele County				
Tooele	2696			>10%
Utah County				
Alpine	2129	Aug 26	--	--
Genola	2282	Aug 16	Aug 20	7%
Payson	2292	Aug 19	Aug 21	8%
Provo (bench)	2375	Aug 16	Aug 18	>10%
Santaquin	2345	Aug 17	Aug 19	>10%
West Mountain	2023	Sep 2	--	--

\*Projected end of 2<sup>nd</sup> generation = 99% egg hatch completed.

\*\*Projected 1% egg hatch of 3<sup>rd</sup> generation.

^Percentage of 3<sup>rd</sup> generation eggs that have hatched.

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 2<sup>nd</sup> and 3<sup>rd</sup> Generation CM in the right column and then the most recent date

**PEACH TWIG BORER (Peach, Nectarine, and Apricot):** The 3<sup>rd</sup> generation of PTB has reached from 1 to 36% egg hatch in northern Utah sites (see PTB table below). If fruit hasn’t been picked then it should be protected through Sep 15 or through harvest, whichever comes first. Be sure to consider the preharvest intervals of insecticides

(required interval between last application and picking fruit) when applying late season insecticides.

Peach Twig Borer (PTB) Phenology Table

	<u>DDs Since Biofix</u>	<u>Projected Onset of 3<sup>rd</sup> Gen.*</u>	<u>% Egg Hatch of 3<sup>rd</sup> Gen.^</u>
Box Elder County Perry	2377	Aug 18	35%
Davis County Kaysville	2267	Aug 22	18%
Utah County			
Alpine	2022	Sep 3	1%
Genola	2206	Aug 23	11%
Lincoln Point	2108	Aug 30	4%
Payson	2228	Aug 23	13%
Provo (bench)	2383	Aug 17	36%

\*Projected 5% egg hatch of 3<sup>rd</sup> generation.  
 ^Percentage of 3<sup>rd</sup> generation eggs that have hatched.

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 2<sup>nd</sup> or 3<sup>rd</sup> 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.

**SPIDER MITES:** Spider mite reproduction is slowing down. Orange-colored adult females that will overwinter on the lower trunks and on debris and groundcover near trunks can be observed as daylength shortens in late August and September. If spider mite densities are high, a late season treatment may be helpful, but it is uncommon to need to treat for spider mites after approx. mid August as reproduction slows dramatically and adult females transform into their diapausing (overwintering) state. See archived advisories for miticide recommendations if needed.

**BOXELDER BUGS and EARWIGS:** Boxelder bugs and earwigs can be late-season threats to peaches. If there is a problem with large numbers of boxelder bugs or earwigs in the canopy, then a treatment of Pyganic, Lannate, Ambush/Pounce, or Sevin should provide some suppression (Lannate will also take care of problematic thrips populations, which may be a concern for nectarine or plum growers). Remember that Ambush, Pounce, and Sevin are toxic to predatory mites and may reduce overwintering populations that

will contribute to mite control next season. Earwigs and boxelder bugs can feed directly on peaches, but these insects usually don't become interested in the fruit until it's nearly ripe. Fruit injury from earwigs is typically small, deep pits (1/4-1/2 inch deep) in the surface of the peach, usually with some relatively large frass pellets scattered within the pit (and no webbing present). Beat-samples or close examinations of fruit (especially split-pits) will determine if earwigs are present.

**A possible upcoming pest concern:**

**ERIOPHYID MITES:** This group of mites (also known as blister mites, peach silver mites, and cherry rust mites) is generally neutral-to-good because while they do feed on leaves and sometimes fruit, they serve as alternate food sources for predatory mites when spider mites aren't around. As an alternate food source, they keep predatory mite numbers higher so that they can more effectively exploit spider mites. However, populations of blister mites can become excessive, especially in pears because pear leaves are somewhat sensitive to feeding injury. September and October are when female pearleaf blister mites (and other eriophyid mites) travel from leaves to buds where they'll overwinter under bud scales. If a grower has had substantial trouble with blister mites, then it might be wise to apply a spray of horticultural oil (2 % by volume) soon after leaves begin to senesce (take on fall colors). This will target the mites during the commute from leaves to buds. Otherwise, a spring application of oil will target these mites as buds open and leaves emerge.