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Upcoming Monitoring/Insect Activity

Peach twig borer	Third generation flight begins at 1760 DD (after biofix)
Codling Moth	2nd Generation peak egg hatch at 1320-1720 DD (after biofix) 3rd Generation flight begins at 2160 DD (after biofix)
Greater Peachtree Borer	Moth flight continues until mid-September

Jump to Treatment Timings:

- [Codling Moth - Commercial](#)
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- [Peach Twig Borer - Commercial](#)
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Attention COMMERCIAL GROWERS: Please see calendar announcements on [page 5](#).

Degree Day Accumulations, as of Wednesday, July 25

County	Location	Codling Moth, Peach Twig Borer (Base 50°F)					Cherry Fruit Fly (Base 41°F)
		DD since March 1	CM DD since biofix*	% CM Egg Hatch	PTB DD since biofix*	% PTB Egg Hatch	DD since March 1
Box Elder	Perry	1955	1773	78	1606	80	3038
Cache	North Logan	1491	1354	15	1193	5	2367
	Richmond	1650	1395	19	1246	9	2601
	River Heights	1700	1516	38	1362	28	2654
Carbon	Price	1949	1679	66	----	----	2972
Davis	Kaysville	1913	1710	70	1529	67	2972
Juab	Tintic	1630	----	----	----	----	2591
Salt Lake	SLCC	2194	1929	92	1730	95	3358
	West Valley City	2133	1879	88	1682	90	3292
Tooele	Erda	2290	1887	89	----	----	3436
	Grantsville	2348	1942	92	----	----	3549
	Tooele	2306	1921	----	----	----	3459
Utah	Alpine	1722	1520	40	1356	28	2742
	Genola	1936	1696	69	1516	65	2993
	Lincoln Point	1795	1583	50	1409	37	2842
	Orem	1979	1762	76	1520	65	3057
	Payson	1957	1752	75	1599	80	3013
	Provo	1981	1653	62	1509	61	3058
	Santaquin	1824	1644	61	1484	56	2848
	West Mountain	1707	1455	28	1313	18	2708
Weber	Pleasant View	2019	1851	86	1667	88	3118

“Base 41F” and “base 50F” refer to the lower temperature threshold at which insects develop;

***Biofix** is the date of moth flight. (CM=Codling Moth, PTB=Peach Twig Borer)

Insect Activity

APPLES AND PEARS

Codling Moth (CM):

Second generation codling moth egg hatch continues in all areas (end is at 2100 degree days). Trap catches are low, which is good. But remember that peak egg hatch occurs between 1380 and 1780 degree days, so make sure your fruit is well-protected at this time.

Egg hatch of the 3rd generation begins at approximately 2160 DD, which means that there is no delay between the second and third generations. Many areas will see a longer third generation this year than in previous years due to the warmer summer. For those areas that will have a third generation (see spray table), prepare to keep fruit protected through approximately September 15.

[Click here](#) for the USU codling moth fact sheet

PEACHES AND NECTARINES

Peach Twig Borer (PTB):

Second generation eggs continue to hatch, and some areas are approaching the beginning hatch for the third generation. If your fruit is already harvested at that time, however, you do not need to worry about protection.

[Click here](#) for the USU peach twig borer fact sheet.

Greater Peachtree Borer (GPTB):

All locations should continue treatment of peaches, nectarines, and apricots by spraying the lower 2-3 feet of your tree trunk through mid-September.

[Click here](#) for the USU greater peachtree borer fact sheet.

ALL TREES

Spider Mites:

Continue to monitor for damage in the lower interior of the tree canopy. Use a hand lens to look for the fast-moving predator mites. If you can estimate approximately 1 predatory mite per leaf and/or fewer than 5-10 damaging mites per leaf, then there is no need to spray.

More than 1800 traps have been hung in Utah, mostly within the Wasatch Front. Almost 480 of those are in an intensive grid within the original catch site. You may have noticed them hanging from fences along rural roads. As of today, just over 1500 adult beetles have been trapped in the greater Orem area (as compared to 600 last year).



Because of the threat caused by establishment of this insect, UDAF has initiated a complete eradication program using insecticides, monitoring, and community support. The program will be continued in 2008 and 2009 and potentially longer if adults are still trapped.

The core infestation site within Orem was treated with Merit on the turfgrass in spring, followed by three sprays of Tempo (cyfluthrin) and carbaryl on the other vegetation.

The adult Japanese beetle feeds on more than 300 different varieties of plants including leaves and fruits of fruit trees. The larvae feed on turfgrass roots. It spends most of its life cycle in the soil, emerging as an adult in early July to early September.



Japanese Beetle Update:

As most of you may know by now, Japanese beetle was discovered in Utah in summer 2006 in Orem. Since then, the Utah Dept. of Agriculture and Food (UDAF) has conducted extensive trapping to determine the extent of the infestation.

Current Spray Timings - Commercial Growers

Note that these treatments are only recommended if you know you have the particular pest in your trees.

Codling moth Second and Third Generations:

The projected timing dates of the spray periods shown below will be updated each week. The critical period of protection corresponds to the period 1320-1720 DD, when the rate of egg hatch is the highest. The end of egg hatch for the second generation is 2100 DD after biofix. The beginning of 3rd generation egg hatch is at 2160 DD after biofix.

County	City	Critical Period of Protection	End of Second Generation	Beginning of 3rd Generation Hatch
Box Elder	Perry, Willard, Brigham	July 10 - 24	August 7	August 9
Cache	North Logan	July 24 - August 11	August 31	----
	Richmond	July 23- August 9	August 29	----
	River Heights	July 18 - August 3	August 22	----
Carbon	Price	July 12 - July 27	August 13	----
Davis	Kaysville	July 12 - July 26	August 9	August 12
Salt Lake	Salt Lake City	July 6 - 19	August 1	August 3
	West Valley City	July 7 - 20	August 2	August 4
Tooele	Erda	July 5 - 20	August 2	August 4
	Grantsville	July 5 - 18	July 30	August 2
	Tooele	July 3 - 19	July 31	August 3
Utah	Alpine	July 17 - August 2	August 18	----
	Genola	July 12 - 26	August 10	August 13
	Lincoln Point	July 15 - 30	August 14	August 17
	Orem	July 5 - 23	August 7	August 10
	Payson	July 9 - 24	August 8	August 11
	Provo	July 10 - 28	August 12	August 14
	Santaquin	July 13 - 28	August 12	August 15
	West Mountain	July 19 - August 5	August 19	----
Weber	Pleasant View	July 8 - 21	August 4	August 6

Materials for codling moth control:

eggs: Rimon, Horticultural oil, Esteem, Confirm, Intrepid, Azatin

larvae: Assail, Asana, Calypso, Carbaryl, Clutch, Diazanone, Guthion, Codling Moth Granulosis Virus, Imidan, Intrepid, Warrior, Sevin, Malathion

Cat-Facing Insects:

chlorpyrifos (Lorsban), endosulfan (Thionex, Phaser), carbaryl (Sevin)

Greater Peachtree Borer

chlorpyrifos (Lorsban), endosulfan (Thionex, Phaser), carbaryl (Sevin), lambda-cyhalothrin (Warrior), permethrin (Ambush, Pounce, many brands)

Rosy and Green Apple Aphids:

Provado, Thiodan

Spider Mites:

Acramite, Envidor, FujiMite, Savey, Zeal

Current Spray Timings - Commercial Growers, continued

Note that these treatments are only recommended if you know you have the particular pest in your trees.

Peach Twig Borer, Second and Third Generations:

The projected timing dates of the spray periods shown below will be updated each week. The second generation spray date represents 1200 DD after biofix, when 5% of eggs have hatched. The ending is at 1900 DD, when 100% of eggs have hatched. The third generation spray date represents 2140 DD after biofix, when 5% of third generation eggs have hatched.

County	City	Beginning Spray Date, Second Generation	Ending Spray Date, Second Generation	Beginning Spray Date, Third Generation
Box Elder	Perry, Willard, Brigham	July 11	August 5	August 15
Cache	North Logan	July 26	August 29	----
	Richmond	July 24	August 26	----
	River Heights	July 19	August 19	----
Davis	Kaysville	July 15	August 8	August 18
Salt Lake	Salt Lake City	July 8	July 31	August 9
	West Valley City	July 10	August 2	August 11
Utah	Alpine	July 19	August 12	----
	Genola	July 14	August 2	August 11
	Lincoln Point	July 17	August 6	August 16
	Orem	July 14	August 9	August 18
	Payson	July 10	August 6	August 16
	Provo	July 14	August 9	August 19
	Santaquin	July 15	August 11	August 21
	West Mountain	July 20	August 17	----
Weber	Pleasant View	July 9	August 3	August 13

Materials for peach twig borer control:

-same as codling moth materials

Western Cherry Fruit Fly:

imidacloprid (Merit, Provado-every 14 days), phosmet (Imidan-every 14 days, but not on sweet cherry), chlorpyrifos (Lorsban-every 14 days but not on sweet cherry), diazinon (every 14 days), spinosad (GF-120, Success), permethrins

White Apple Leafhopper:

carbaryl, cyfluthrin (Baythroid), endosulfan (Thionex), novaluron (Rimon), permethrin

Woolly Apple Aphid:

Provado, Calypso, malathion

Cherry Powdery Mildew:

azoxystrobin (Amistar), boscalid (Pristine), fenarimol (Rubigan), myclobutanil (Laredo), propiconazole (Orbit), quinoxifen (Quintec), triadimefon (Bayleton), trifloxystrobin (Flint), triflumizole (Procure)

Calendar Information for Commercial Growers

UPCOMING ACTIVITIES:

Utah Orchard Tree Fruit Tour:

Thursday, August 2, 3:00 pm,

Commercial growers are invited to attend a field tour and discussion at three orchard locations in Utah and Juab Counties:

Tart Cherry Orchard in Tintic: Growers and Farm Owners Phil and Thad Rowley discuss their use of center-pivot irrigation in a harsh, dry environment. In addition, Extension Fruit Specialist Brent Black discusses other irrigation techniques and Extension Entomologist Diane Alston discusses research on attractants for trapping and managing western cherry fruit fly.

Apple Site at Orchard in Genola: Grower and Farm Owner Dale Rowley discusses his codling moth program, use of puffers (a newer mating disruption dispenser), and monitoring program. Diane Alston discusses her latest research on codling moth monitoring in mating disrupted orchards.

Apple site at Orchard in West Mountain: Grower Chris Wall, Horticultural Consultant Earl Seeley, and Extension Specialist Kent Evans discuss this season's fire blight problem, control and management practices, and where we go from here. Other disease problems may be discussed.

We hope you can join us! Travel is on your own/carpool. Refreshments will be provided.

Directions

Tintic Orchard (First Stop; meet here at 3:00 p.m.):

From I-15, take exit 244 (Santaquin), and travel west on Route 6 for 20.4 miles to the town of Eureka. Stay on Route 6 towards Delta for an additional 6.2 miles to the orchard. Turn left into main entrance.

Genola Orchard:

From Tintic orchard, continue back on Route 6 for approximately 22 miles to Genola. Turn left onto Route 141 (South State St.). Turn left on 800 East and continue for approximately 2 miles (800 East turns into 1600 North). Turn right onto Main St. at stop sign. Continue approximately 1.5 miles (passing apple, sweet cherry, and tart cherry blocks) to golden delicious block on the right. Park along the road.

West Mountain Orchard:

From Genola orchard, go back south on North Main, and turn left on 1600 North. Continue until 4-way stop at 400 North, and turn left. Pass the quarry on the left and continue to the stop sign. Turn left at stop sign onto Route 141 (SW Mountain Rd.). From the last curve in the road, drive approx. 1.1 miles to "West Mountain Orchard" sign on the left and enter there (where outdoor growers meetings are held).

Utah Berry Growers Summer Tours

Bear Lake Tour, Thursday, July 26, 5:00 – 7:00 p.m.

The tour will begin at Roger Earley's farm on West Round Valley Road in Laketown. We will be looking at the USU variety trial at that location, discussing weed, disease and insect pest management, and irrigation scheduling. We are also planning additional stops in the Laketown area as time permits.

Driving directions:

Turn South off Highway 30 in Laketown. Turn right at the stop sign onto Center Street/North Round Valley Road. Follow North Round Valley Road approximately 3 miles to the T intersection at West Round Valley / Meadowville Road. Turn left on West Round Valley and travel about 1.4 miles until you see the raspberry fields on the west side of the road.

Utah County Tour, Wednesday, August 22, 3:00 – 5:00 p.m.

Vern Stratton will be hosting the tour, with the first stop at his field just east of State Street (US 89) on 1360 North Street in Orem. We will be looking at strawberry and fall raspberry production, and discussing insect pests and irrigation management. Vern will also be talking about his peach production, and has agreed to share some of his wealth of experience in growing and marketing fresh fruit.

Driving Directions:

Take State Street in Orem to West 1360 North. Go one block east on 1360 North. The paved road turns to the left, but continue straight through the gate.

Current Spray Timings - Homeowners

Note that these treatments are only recommended if you know you have the particular pest in your trees.

Codling moth Second and Third Generations:

The projected timing dates of the spray periods shown below will be updated each week. The “ending spray date” for the second generation is at 2100 DD after biofix, when all eggs finish hatching. The “beginning spray date” for the third generation is 2160 DD after biofix, when the eggs begin hatching.

Read your pesticide label for residual period (length of time it is effective) and re-apply at the given interval from beginning date to ending date, so that fruit is protected during this entire period. Pay attention to the harvest date and time the last spray accordingly.

County	City	Ending Spray Date, 2nd Generation	Beginning Spray Date, 3rd Generation
Box Elder	Perry, Willard, Brigham	August 8	August 9
Cache	North Logan	September 1	----
	Richmond	August 26	----
	River Heights	August 20	----
Carbon	Price	August 20	----
Davis	Kaysville	August 13	August 12
Salt Lake	Salt Lake City (estimate)	August 1	August 3
	West Valley City	August 2	August 4
Tooele	Erda	August 3	August 4
	Grantsville	August 1	August 2
	Tooele	August 2	August 3
Utah	Alpine	August 18	----
	Genola	August 10	August 13
	Lincoln Point	August 14	August 17
	Orem	August 7	August 10
	Payson	August 9	August 11
	Provo	August 12	August 14
	Santaquin	August 14	August 15
	West Mountain	August 19	----
Weber	Pleasant View	August 7	August 6

Materials for codling moth control:

Chemical	Example Names	Protection Period
carbaryl	Sevin, Bayer Advanced Complete Insect Killer, etc.	7-14 days (read label)
malathion	Bonide Malathion, Hi-Yield 55% Spray,	7-14 days (read label)
<i>Bacillus thuringiensis</i>	Dipel	3-6 days (read label)
spinosad	Success, Entrust	3-6 days (read label)
CM granulosis virus	Virusoft	10-14 days
kaolin clay	Surround	5-7 days

Cat-Facing Insects:

carbaryl (Sevin), esfenvalerate (Bug Buster, KGro Multi-Purpose), malathion, permethrin (many brands)

Greater Peachtree Borer

carbaryl (Sevin), permethrin (many brands) (just spray the bottom 2-3 feet of the tree trunk, and maintain protection through mid-

Current Spray Timings - Homeowners, continued

Peach Twig Borer, Second Generation:

The projected timing dates of the spray periods shown below will be updated each week. The spray date for the second generation represents 1200 DD after biofix, when 5% of eggs have hatched. For materials that last fewer than 10 days, apply a second spray.

County	City	Beginning Spray Date, Second Generation	Ending Spray Date, Second Generation	Beginning Spray Date, Third Generation
Box Elder	Perry, Willard, Brigham	July 11	August 5	August 15
Cache	North Logan	July 26	August 29	----
	Richmond	July 24	August 26	----
	River Heights	July 19	August 19	----
Davis	Kaysville	July 15	August 8	August 18
Salt Lake	Salt Lake City (est.)	July 8	July 31	August 9
	West Valley City	July 10	August 2	August 11
Utah	Alpine	July 19	August 12	----
	Genola	July 14	August 2	August 11
	Lincoln Point	July 17	August 6	August 16
	Orem	July 14	August 9	August 18
	Payson	July 10	August 6	August 16
	Provo	July 14	August 9	August 19
	Santaquin	July 15	August 11	August 21
	West Mountain	July 20	August 17	----
Weber	Pleasant View	July 9	August 3	August 13

Materials for peach twig borer control are same as for codling moth

Rosy and Green Apple Aphid:

malathion (Ferti-lome Mal-a-cide, etc.), pyrethrin (Hi-Yield Rose and Flower Spray, etc.)

Spider Mite Adults:

insecticidal soap, permethrin, malathion, neem oil

Western Cherry Fruit Fly:

spinosad (GF-120, Natural Guard Spinosad, every 7 days), Sevin (every 7 days), permethrins (every 7-14 days)

Woolly Apple Aphid:

carbaryl (Sevin), malathion

Cherry Powdery Mildew:

Hi-Yield Lime Sulfur Spray, Bonide Sulfur Dust

Precautionary Statement: All pesticides have benefits and risks, however following the label will maximize the benefits and reduce risks. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use.

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