

News/What to Watch For:

Coryneum blight lesions on peach have been reported from across Utah. There is nothing to do now except protect from additional infections (after any 4-hour rainfall).

The hot weather encourages spider mites; they are easier to control when treated at low populations. Monitor for them starting with the lowest foliage, closest to the trunk.

Trees with iron chlorosis will be under more stress in the hot, dry conditions and prone to scorch; apply a foliar application if necessary.

Updated Codling Moth and Peach Twig Borer Dates, and Residential Products, pgs 5-7.

JUST THE BASICS: Current Treatments


APPLE & PEAR


- Continue protecting fruit from *codling moth*.
- Continue to prune out *fire blight* strikes to prevent further spread.

PEACH/NECTARINE, APRICOT

- For *coryneum blight*, apply fungicide after each 4-hour rainfall (if disease is already present).
- Second generation of *peach twig borer* to begin soon. See page 6.

Insect and Disease Information

 : information for residential settings

 : information for commercial orchards

APPLE and PEAR

Codling Moth

Hosts: apple, pear

Most areas are now approaching the start of the “period of rapid egg hatch” for the second generation of codling moth. If you feel you have protected your trees well during the first generation, and are not seeing much injury to your fruit, you may be able to get away with one to two sprays for the second generation, and one spray for the third generation. Otherwise, keep the fruit continually protected until mid-September.

Note that there are label restrictions for some products on how many times it may be used, shown on the table to the right. Using a different product for each codling moth generation will help to prevent going over the maximum spray limit for any given product.

Product	Max Sprays	Last Spray to Harvest (PHI)
Bonide Fruit Spray (captan, malathion, carbaryl)	2	14
Bonide Fruit & Plant Guard (lambda-cy, pyraclostrobin, boscalid)	none listed	21 days
Concern Multi-Purpose (and all pyrethrin products)	none listed	0
Cyd-X Virus Spray	none listed	0
Malathion	3	7
Monterey Insect Control (and all spinosad products)	6	7
Ortho Fruit & Veg.	4	7 days
Sevin	8	3
Spectracide Triazicide	5	21

Insect and Disease Activity, continued

PEACH/NECTARINE, APRICOT, CHERRY

Greater Peachtree Borer

Hosts: peach/nectarine



peachtree borer larvae can feed on roots or trunk below the soil surface

Continue to protect the lower trunks of your susceptible trees through September. As you spray the trunk, be sure to remove tall grass, weeds, or mulch from around the base of the tree so that the spray can cover the entire trunk and can penetrate the soil to the upper crown and roots.

Again, the materials for home growers include the following. Repeat every 21-30 days:

- carbaryl (Sevin)
- permethrin: this option works the best. (Many brands, including Bonide Borer-Miner Killer, Enforcer Outdoor Insect Killer, Hi-Yield Broad Use Including Gardens; Lilly Miller Multi-Purpose Insect Spray)
- Spectracide Triazicide

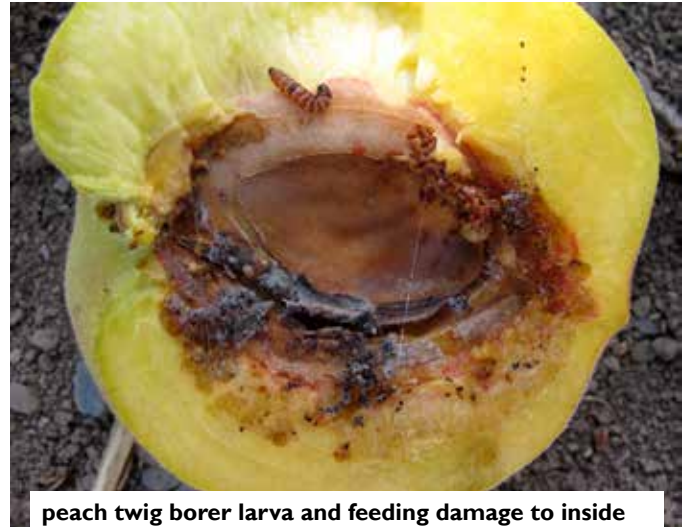
Peach Twig Borer

Hosts: peach/nectarine, apricot

In some areas, we are approaching the end of the first generation of peach twig borer, with egg hatch for the second generation in mid to late July. Where this insect is a problem, the second generation is more devastating because the larvae will attack the fruit.

Growers that will be harvesting apricots will need to manage sprays that will protect the fruit to harvest. Some option that have a shorter pre-harvest interval are Assail, Belt, and Intrepid (7 days) or Entrust (1 day).

Treatment options are the same as for codling moth, and shown on page 7.



peach twig borer larva and feeding damage to inside of peach

Commercial growers can find treatment options for peach twig borer [here](#). Go to pages 115-116 of the pdf.

Spider Mites

Hosts: all fruit trees



on apple trees, heavy populations can lead to a scorched appearance to the foliage

Spider mites thrive in hot, dry, and dusty conditions and are loving our Utah weather this summer. They feed with piercing-sucking mouthparts, and remove chlorophyll from the leaves. The resulting symptom is called stippling.

If spider mite populations are building on tart cherry trees, it is important to control them to prevent loss of tree vigor, especially when crop load is high. After harvest, a spray of 1% oil (at night or when temperatures are below 85F for 4 hours) could help reduce populations.

Predatory mites are essential in helping to keep pest spider mites under control. They can be seen under a hand lens of about 20-30x, and are about the same size as spider mites but

Insect and Disease Activity, continued

are pear-shaped, and faster moving. Some insecticides such as pyrethroids or carbaryl are harmful to predatory mites and can result in a buildup of spider mite populations.

Commercial growers have a variety of options to use for spider mites, but be aware of the max number of applications (often 1 or 2) and the PHI (often 21 days or more).

apple
cherry
peach/nectarine

Backyard growers, see last page of this newsletter.

Western Cherry Fruit Fly

Hosts: cherry



Most sweet cherries (where they survived the spring frost) have been harvested, and tart cherry harvest is underway. If a cherry fruit fly treatment is needed close to harvest, select a product with a short pre-harvest interval, such as Sevin or Malathion (both 3 days), or GF-120 (1 day).

You may choose to use Provado/Admire Pro for your last spray (7 days) because it penetrates into the fruit slightly to target any larvae inside. Keep in mind, though, that Provado can encourage spider mites.

Walnut Husk Fly

Hosts: walnut, peach, apricot

Walnut husk flies will start to emerge throughout the Wasatch Front in the next week, and in cooler areas, in late July. Just like cherry fruit fly, the husk fly overwinters as pupae in the soil, emerging in mid summer to lay eggs. The peak emergence of flies will occur in early to mid-August.



walnut husk fly larvae and black staining in walnut (top); larva in apricot (bottom)



Black, Japanese, and English walnuts are all hosts for the husk fly. (Peach and apricot fruit are also sometimes attacked.) Although the maggots do not damage walnut meat directly, their feeding on the husk causes indirect damage by making hull removal difficult, and causing black staining of the nutshell.

Female husk flies lays eggs just below the surface of the walnut husk. Maggots feed on the husk for 3 to 5 weeks and then drop to the soil to pupate. There is a single generation per year.

Like cherry fruit fly, populations of walnut husk fly can be reduced by placing landscape fabric under the tree canopy in late summer to prevent larvae from entering the soil. Also, remove all nuts that fall to the ground. To make husk removal easier, store infested nuts in a damp burlap bag for 2-3 days.

For residential sites, use the same products as cherry fruit fly.

Production Information

EPA Proposed Label Changes for Bee Protection

In June, the EPA sought comment on a proposal to adopt pesticide label restrictions to protect bees. Specifically, the proposal would protect *managed bees under contract pollination services* from foliar application of pesticides that are acutely toxic to bees on a contact exposure basis. The toxic pesticides are those with an acutely lethal dose to 50% of the bees tested of less than 11 micrograms per bee.

These label restrictions would prohibit applications of pesticide products, which are acutely toxic to bees, during bloom when bees are known to be present under contract. (The proposed label restrictions will not apply to situations where contracted pollination services are not in use.)

For managed bees not under contracted services, or for other “unmanaged” bees, the EPA will rely on state “Managed Pollinator Protection Plans” (MP3s), as identified in past public comment periods.

As part of this mitigation proposal, the 48-hour notification exception for crops under contracted pollination services during bloom for all neonicotinoid product labels would be removed. These restrictions are intended to reduce the likelihood of acute exposure and mortality to managed bees under contract. EPA is not proposing at this time to require new language for pesticide labels for managed bees not under contract pollination services.

EPA states that if it receives evidence that existing beekeeper-to-grower contracts are not of risk concern for bees under contract, then EPA will consider this information in determining whether this scenario needs the mitigation indicated in the proposed language.

Note that the proposal does not impose a ban on neonicotinoid pesticides. The proposal does not offer significantly new restrictions regarding pollinators generally, but maintains a focus on contracted honeybees and commercial pollination services.

From EPA’s Proposal, here is the proposed Label language:

FOR FOLIAR APPLICATIONS OF THIS PRODUCT TO SITES WITH BEES ON-SITE FOR COMMERCIAL POLLINATION SERVICES: Foliar application of this product is prohibited from onset of flowering until flowering is complete when bees are on-site under contract, unless the application is made in association with a government-declared public health response. If site-specific pollinator protection/pre-bloom restrictions exist, then those restrictions must also be followed.

The full proposal can be found by [clicking here](#). The list of pesticides is included on page 17 of the pdf document.



Spray Timing Information - Codling Moth

Please check this table at each advisory as the information may change as the dates get closer. The forecasts use the average temperature for each site. Fruit should remain protected through each generation according to interval provided on your pesticide label. Many more locations can be viewed on the [Utah Climate Center TRAPs website](#) (select location; select codling moth).

Codling Moth, Second Generation

The “period of greatest egg hatch” is the time when 75% of all eggs for the first generation will hatch. Use this information to time your treatment applications.

County	Location	Beginning of 2nd Gen. Egg Hatch	2nd Gen. Period of Greatest Egg Hatch	2nd Gen. End of Egg Hatch
Box Elder	Perry	passed	July 11 - July 24	not yet known
	Tremonton	July 6	July 17 - July 27	not yet known
Cache	Logan Airport	July 20	July 30 - not yet known	not yet known
	River Heights	July 13	July 23 - Aug 4	not yet known
Carbon	Price Airport	July 12	July 23 - Aug 4	not yet known
Davis	Kaysville	passed	July 12 - July 23	Aug 8
Grand	Moab	June 24	July 4 - July 30	Aug 1
Iron	Cedar City Airport	July 15	July 26 - Aug 8	not yet known
Salt Lake	Benches/Cooler sites	July 13	July 23 - Aug 6	Aug 8
	Most areas	passed	July 10 - July 21	Aug 5
Sevier	Monroe	July 7	July 16 - July 29	not yet known
Tooele	Erda Airport	passed	July 15 - July 26	Aug 9
	Grantsville	passed	July 12 - July 23	Aug 7
Uintah	Vernal Airport	July 14	July 25 - Aug 7	not yet known
Utah	Alpine	July 10	July 21 - Aug 3	not yet known
	American Fork	passed	July 13 - July 25	Aug 9
	Genola (CHF)	passed	July 9 - July 21	Aug 6
	Lincoln Point	passed	July 15 - July 27	not yet known
	Orem (Lindon)	passed	July 14 - July 25	Aug 9
	Payson	passed	July 13 - July 25	Aug 9
	Provo Airport	passed	July 15 - July 26	not yet known
	Provo Canyon	July 6	July 17 - July 28	not yet known
	Santaquin (South Ridge)	passed		not yet known
	Tickville (Oak Springs)	July 16	July 26 - Aug 7	not yet known
	West Mountain (Wall)	passed	July 15 - July 26	not yet known
Weber	Ogden Airport	passed	July 12 - July 23	Aug 6
	Pleasant View	passed	July 6 - July 18	Aug 2
Wasatch	Heber City	July 23	Aug 4 - not yet known	not yet known
Washington	New Harmony	July 8	July 19 - Aug 1	not yet known
Wayne	Torrey	passed	July 8 - July 21	Aug 7

Spray Timing - Peach Twig Borer

Peach Twig Borer, First and Second Generations

Apply at least one application per generation, or two in high population areas. For the start of the second generation, use the earlier spray date if you had PTB damage last year and the later date if you had very little damage.

County	Location	2nd Gen. Treatment Start Date Range	Keep Fruit Protected Up To:	3rd Gen. Treatment Start Date Range
Box Elder	Perry	July 13 - 17	not yet known	not yet known
	Tremonton	July 17 - 21	not yet known	not yet known
Cache	All Locations	July 23 - 27	not yet known	not yet known
Carbon	Price Airport	July 26 - 30	not yet known	not yet known
Davis	Kaysville	July 12 - 16	Aug 7	not yet known
Grand	Moab	July 4 - 8	July 29	Aug 6 - not yet known
Iron	Cedar City Airport	July 25 - 29	not yet known	not yet known
Salt Lake	Benches/Cooler sites	July 13 - 17	Aug 6	not yet known
	Most areas	July 10 - 14	Aug 5	not yet known
Sevier	Monroe	July 13 - 17	not yet known	not yet known
Tooele	Erda Airport	July 15 - 19	not yet known	not yet known
	Grantsville	July 13 - 17	Aug 7	not yet known
Uintah	Vernal Airport	July 25 - 29	not yet known	not yet known
Utah	Alpine	July 22 - 26	not yet known	not yet known
	American Fork	July 13 - 17	not yet known	not yet known
	Genola (CHF)	July 12 - 15	Aug 7	not yet known
	Lincoln Point	July 16 - 19	not yet known	not yet known
	Orem (Lindon)	July 10 - 13	Aug 5	not yet known
	Payson	July 14 - 18	not yet known	not yet known
	Provo Airport	July 15 - 19	not yet known	not yet known
	Provo Canyon	July 22 - 25	not yet known	not yet known
	Santaquin	July 16 - 20	not yet known	not yet known
	Tickville (Oak Springs)	July 23 - 27	not yet known	not yet known
West Mountain	July 15 - 19	not yet known	not yet known	
Washington	New Harmony	July 18 - 22	not yet known	not yet known
Weber	Pleasant View	July 8 - 12	Aug 3	not yet known
Wayne	Torrey	July 21 - 25	not yet known	not yet known

Spray Materials - Residential Applicators

Note that these treatments are only recommended if you know you have the particular pest in your trees. We recommend learning about specific pests, and scouting your trees at least once/week.

Target Pest	Host	Chemical	Example Brands	Comments
Codling moth	apple, pear	<i>Conventional</i> acetamiprid carbaryl gamma-cyhalothrin malathion <i>Soft/organic</i> codling moth virus spinosad	Ortho Max Flower, Fruit, and Veg. Sevin, Bonide Fruit Tree Spray, etc. Spectracide Triazicide Bonide products, Malathion Cyd-X Green Light, Gardens Alive Bull's Eye, Monterey	acetamiprid: every 14 days carbaryl: every 14 - 21 days malathion: every 7 days; check label carefully as some brands do not apply to apple or pear gamma-cyhalothrin: every 14 days spinosad: every 7 days codling moth virus can only be purchased online
Coryneum blight	peach, apricot	<i>Conventional</i> captan myclobutanil	Captan Spectracide Immunox	captan: use as a preventive before a rain Immunox: may be applied after a rain
Peach twig borer	peach, nectarine	<i>Conventional</i> acetamiprid carbaryl gamma-cyhalothrin malathion permethrin <i>Soft/organic</i> kaolin clay spinosad	Ortho Max Flower, Fruit, and Veg. Sevin, Bonide Fruit Tree Spray, etc. Spectracide Triazicide Bonide products, Malathion Hi-Yield Lawn, Garden, and Livestock Insect Control Surround see 'codling moth' above	see comments under Codling Moth permethrin: peaches only; every 14 days; this ingredient is becoming less available in stores and may cause spider mite outbreaks Surround: every 3-5 days; works to repel, not kill insects; only moderate control; must purchase online
Western cherry fruit fly and Walnut husk fly	cherry walnut, peach (rarely), apricot (rarely)	<i>Conventional</i> acetamiprid carbaryl gamma-cyhalothrin malathion <i>Soft/organic</i> pyrethrin spinosad	Ortho Max Flower, Fruit, and Veg. Sevin, Bonide Fruit Tree Spray, etc. Spectracide Triazicide Bonide products, Malathion Concern Multi-Purpose see above	start applications when fruit in sunniest locations develops a salmon blush spinosad: every 7 days malathion: check label carefully as some brands do not list cherry
Greater peachtree borer	peach, nectarine, apricot	<i>Conventional</i> gamma-cyhalothrin permethrin	Spectracide Triazicide Hi-Yield Lawn, Garden, and Livestock Insect Control	apply every 3 to 4 weeks until mid-September in highly infested areas; apply twice in low infestations permethrin: peaches only
Spider mites	all	<i>Soft/organic</i> oil (1%) insecticidal soap	Many products, EcoSmart Safer's, Bayer Natria, Bonide	oil and soap: allow 4 hours-time for application to dry before temps reach 85F or above.

Precautionary Statement: Utah State University Extension and its employees are not responsible for the use, misuse, or damage caused by application or misapplication of products or information mentioned in this document. All pesticides are labeled with ingredients, instructions, and risks. The pesticide applicator is legally responsible for proper use. USU makes no endorsement of the products listed herein.

Tree Fruit IPM Advisory

is published weekly by Utah State University Extension

Editor: Marion Murray, marion.murray@usu.edu

[click here](#) for archived advisories