

News/What to Watch For:

Sweet cherries are ripening up and birds are preparing for a feast. If you have any ingenious ways to keep the birds away, share them on our [Facebook page \(click here\)](#).

Powdery mildew continues to develop in cherries.

Iron chlorosis is evident on new foliage of peach, plum; consider getting leaf nutrition analysis in early August.

Updated Codling Moth and Peach Twig Borer dates and recommended products, pages 5-7.

JUST THE BASICS: Current Treatments

APPLE & PEAR

- *Spider mites* are becoming active and can be treated with 1% horticultural oil.

PEACH/NECTARINE, APRICOT

- *Peach twig borer* first treatment for some locations.
- *Greater peachtree borer* moths are active; time to start protecting lower trunk of susceptible trees.

CHERRY

- *Western cherry fruit fly* treatment should continue until harvest to prevent “wormy” fruit.

WALNUT

- Damage from *walnut husk fly* should be prevented soon on susceptible walnuts.

Insect and Disease Information

: information for residential settings

: information for commercial orchards

APPLE & PEAR

Codling Moth



Hosts: apple

Towards the end of June/early July, egg hatch for the first generation will be over in most areas of northern Utah. Plan your last treatment accordingly so that its protection “runs out” close to the end of the first generation. For example, if the ending date for your city is July 3, and the material you are using lasts 2 weeks, you are all set if your last spray was around June 14. Toward the end of the generation, very little egg hatch is happening.

The start of second generation egg hatch will be about 7 or more days after the end of the 1st. So in the example above, the next treatment would be at the start of the 2nd generation.



To see how well your fruit is faring, you should start inspecting your fruit now for codling moth feeding. Check fruits that are touching each other or touching a leaf. Most fruit that was attacked by 1st gen. larvae will drop to the ground.

Insect and Disease Information, continued from previous page

PEACH/NECTARINE, APRICOT, CHERRY

Greater Peachtree Borer

Hosts: peach/nectarine



It is time to start treating for greater peachtree borer where this insect is a pest. We have started catching them in our monitoring traps. Only spray the lower 18 inches of the trunk and any exposed roots. If you can remove some soil, mulch, weeds, etc., from around the base of the tree, that would be better.

Materials for commercial growers include:

- Lorsban (1 spray only; do not touch foliage)
- carbaryl (Sevin)
- esfenvalerate (Asana)
- lambda-cyhalothrin (Warrior)
- permethrin (Ambush, Pounce, many brands)

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

Greater peachtree borer is a moth with a metallic, blue-black body that has narrow yellow bands and clear wings. Adult emergence and egg-laying will peak in mid-July to early August, and may extend into September, so that is the most important time to keep the bark protected.

The female moth lays eggs in bark crevices and the creamy-white larvae burrow into the bark and begin to feed on inner bark. There it will stay for the winter until the following

GPTB, continued

spring, where it will begin feeding again until it pupates and emerges as an adult. It is springtime when oozing is most commonly seen at the base of the tree.

Young trees can be killed when trunks are girdled by feeding; older trees are weakened and become susceptible to attack by pathogens and bark beetles.

There is a USU Extension video on monitoring for greater peachtree borer, and identifying it in a trap, which can be accessed by [clicking here](#). Keep in mind that using traps is for monitoring purposes only, not for controlling this pest.

Peach Twig Borer

Hosts: peach/nectarine, apricot



Most areas of northern Utah should have already applied the first treatment for peach twig borer. Larvae of the first summer generation will feed within succulent shoots of apricot, peach, and nectarine. They bore into the tips of the shoots and feed just on the upper inch or so of growth, causing the leaves to wilt over. Feeding is almost always associated with some oozing at the shoot tip.

Usually for the first generation of peach twig borer, you only need to apply one treatment. You will need to apply a second treatment at the start of the 2nd generation. Whether a third treatment is applied will depend on the pest pressure in your area and when your fruit will be harvested.

Cherry Fruit Fly

Hosts: cherry

Sweet cherries are being harvested in some areas, with tart cherry harvest to begin in a few weeks. If a fruit fly spray is needed close to harvest, choose one with a short pre-harvest interval, like GF-120 (4 hours), Sevin (3 days), or Malathion (1-3 days). Note that the straight spinosad products (Success, Entrust) have a 7-day pre-harvest interval.

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Walnut Husk Fly

Hosts: apricot, walnut



walnut
husk fly
larva
feeding
inside
apricot



walnuts
that are
attacked
early on
in devel-
opment
will drop
to the
ground

According to the walnut husk fly model, protection of walnuts (and apricots, where necessary) should begin at these times:

Most areas of Wasatch Front: July 1 - 8

Cooler areas (Benches, Cache, Carbon, etc.): July 23 - 27

Both black and English walnut trees are susceptible, and where apricots and peach are nearby, they may be attacked, too. Emergence will continue to late September, with peak egg-laying to occur in mid August.

To avoid husk flies all together, spray at regular intervals until the walnuts are within 1 month of harvest. Eggs laid later than this will not have time to develop and cause damage. If you are not sure if you have walnut husk fly, you can hang a Pherocon AM yellow sticky trap (purchase online or by phone from Great Lakes IPM).

If you don't mind the extra work of removing the damaged husks, treatment on walnuts is not necessary because the kernel is usually not damaged.

walnut husk fly, continued

Storing the infested nuts in a damp burlap bag for 2-3 days will help in husk removal.

When maggots feed on young, developing walnuts, the walnut shrivels, turns moldy, and drops prematurely. Later feeding (late Aug. – Sept.) will not affect the kernel, but will result in a husk that is stained black and a hull that is difficult to separate from the nut. The maggots feed for 3 to 5 weeks before dropping to the soil to pupate.

Options for backyard trees are spinosad (Green Light, Gardens Alive Bull's Eye, Monterey) which is applied every 7 days, or acetamiprid (Ortho Flower, Fruit, and Vegetable), which is applied every 14 days. Make sure you cover the entire tree.

Another option is using a bait with spinosad. The bait attracts the adult flies to feed on the product, and the spinosad kills the flies. GF-120 is a prepared bait, but is only sold in gallon sized containers for at least \$100.

You could consider mixing your own bait solution with spinosad concentrate, and about 4 to 6 tablespoons of molasses per gallon of water applied. The GF-120 or homemade spray mix does not need to cover the entire tree. Instead, it should be applied as evenly spaced, large droplets.

Spider Mites

Hosts: all fruit trees



spider
mite
feeding
causes a
symptom
known as
stippling;
it begins
on the
lowest
leaves
first

Spider mites were seen in some of our orchard monitoring sites in Utah and Box Elder counties. In some areas, the mites are just starting to colonize the tree and were found primarily on the lowest leaves of the inner canopy. In other areas, the mites had already increased to such high numbers that webbing was visible on the foliage and the leaves had started to scorch from the heavy feeding damage.

Keep a close watch on your own fruit trees for build-up of spider mite colonies. Trees can tolerate a low to moderate population (7-10 mites/leaf). But the coming hot

Insect and Disease Information, continued from previous page

spider mites, continued

temperatures and dust will increase mite development and reproductive rates.

In addition, some insecticides like carbaryl (Sevin) and imidacloprid (Provado and generics) can actually promote spider mite reproduction.

Light infestations cause a symptom on the foliage known as “stippling”. The spider mites feed on the undersides of leaves with their piercing mouthparts, and suck out plant cell contents, leaving behind tiny chlorotic (yellow) spots.

Heavier feeding can cause the tissue to actually scorch, known as “mite burn,” most commonly seen on apples.

On pears, mite feeding does not cause stippling, and sometimes it may not be obvious that spider mites are present without looking at the undersides of the leaves. Pear leaves may show slight scorching or blackening of leaf edges and petioles. Also, heavy feeding on older leaves can cause newly emerging foliage to be deformed or to have black spots.

Before making a decision on whether to treat for mites, look for predatory mites within the pest mite population (using a hand lens of about 20-30x). These are fast moving mites, about the same size as spider mites, that can prevent spider mite densities from exceeding economic thresholds. If predators are present, then a treatment may not be necessary.



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, First and Second Generations

Apply treatments (the number of times depends on prior infestation), spaced 7-21 days apart (depending on material) to protect fruit up to the end of the first generation egg hatch. Time the last treatment to be 10-25 days (depending on the material) before the "End" date.

County	Location	Period of Greatest Egg Hatch	End 1st Gen.	Start Spray, 2nd Gen.
Box Elder	Perry	Passed	July 3	July 12
	Tremonton	June 4 - June 21	July 6	July 14
Cache	River Heights	June 7 - June 26	July 11	July 19
	Richmond	June 12 - June 30	July 14	July 22
Carbon	Price	June 4 - June 21	---	---
Davis	Kaysville	Passed	June 29	July 7
Grand	Castle Valley	Passed	June 17	June 25
Juab	Tintic	June 6 - June 23	July 9	July 18
Salt Lake	North Holladay	June 4 - June 21	June 24	July 2
	Taylorsville	Passed	June 26	July 4
Sevier	Monroe	Passed	June 28	July 8
Tooele	Erda	Passed	June 30	July 8
	Grantsville	Passed	June 26	July 4
Uintah	Vernal Airport	June 3 - June 21	July 7	July 16
	Alpine	June 6 - June 24	July 8	July 17
	American Fork	Passed	July 1	July 9
	Genola	Passed	June 28	July 8
	Lincoln Point	June 2 - June 21	July 3	July 11
Utah	Orem (Lindon)	Passed	June 29	July 7
	Payson	Passed	June 30	July 8
	Provo Airport	Passed	June 29	July 7
	Provo Canyon	Passed	July 5	July 13
	Santaquin	Passed	July 1	July 10
	Tickville	Passed	July 4	July 15
	West Mountain	Passed	July 1	July 9
Weber	Ogden Airport	Passed	June 28	July 6
Wasatch	Heber City	June 13 - July 1	July 17	---
Washington	New Harmony	Passed	June 24	July 3
Wayne	Torrey	Passed	June 22	July 1

Spray Timing - Peach Twig Borer

Peach Twig Borer, First and Second Generations

End of egg hatch, where you should “keep fruit protected up to” is at 800 degree days, and eggs of the 2nd generation (which would be laid on fruit) start hatching

County	Location	Apply First Spray:	Keep Fruit Protected Up To:	Start Date 2nd Gen.
Box Elder	Perry	passed	July 9	July 20 - 25
	Tremonton	June 20 - 23	July 14	---
Cache	All Locations	June 23 - 26	June 16	---
Carbon	Price	June 21	July 13	---
Davis	Kaysville	passed	July 5	July 20 - 25
Grand	Castle Valley	passed	Past	July 4 - 7
Iron	Cedar City	June 20 - 22	July 13	---
Juab	Tintic	June 20 - 22	July 13	---
Salt Lake	Holladay	passed	June 30	July 15 - 18
	Taylorsville	passed	June 29	June 13 - 16
Sevier	Monroe	passed	July 5	July 22 - 26
Tooele	Erda	passed	July 1	July 17 - 21
	Grantsville	passed	June 29	July 14 - 18
Utah	Alpine	June 22 - 25	July 17	---
	American Fork	passed	July 3	July 19 - 23
	Genola	passed	July 1	July 17 - 20
	Lincoln Point	passed	July 3	July 17 - 21
	Orem	passed	July 4	July 19 - 23
	Payson	passed	July 2	July 18 - 21
	Provo Airport	passed	July 1	July 18 - 22
	Santaquin	passed	July 3	July 19 - 22
	Tickville	passed	July 9	July 26 - 30
	West Mountain	passed	July 3	July 18 - 22
Weber	Pleasant View	passed	June 30	July 15 - 19
Wayne	Torrey	passed	June 26	July 11 - 14

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> oil (1%) spinosad codling moth virus	Ortho Fruit and Veg. Sevin, Bonide Fruit Tree Spray, etc. Spectracide Triazicide Malathion Many products, EcoSmart Green Light, Gardens Alive Bull's Eye, Monterey Cyd-X	acetamiprid: every 14 days carbaryl: every 14 - 21 days gamma-cyhalothrin: every 14 days malathion: every 7 days hort. oil: lasts 5-7 days for killing eggs; use at beginning of each generation; apply only when temperatures are below 80 F; follow up with a different product spinosad: every 7 days codling moth virus can only be purchased online
San Jose scale	apple	<i>Conventional</i> acetamiprid carbaryl gamma-cyhalothrin malathion <i>Soft/organic</i> oil (1%) insecticidal soap	Ortho Fruit and Veg. Sevin, Bonide Fruit Tree Spray, etc. Spectracide Triazicide Malathion Many products Safer's, Bayer Natria	only treat when crawlers are active. oil and soap: allow 4 hours-time for application to dry before temps reach 85 or above.
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 85 or above.
Coryneum blight	peach, apricot	<i>Conventional</i> myclobutanil captan	Spectracide Immunox Captan	Use as a preventive before a rain.
Peach twig borer	peach, nectarine	<i>Conventional</i> acetamiprid carbaryl malathion permethrin <i>Soft/organic</i> spinosad kaolin clay	Ortho Flower, Fruit & Veg Sevin, Bonide Fruit Tree Spray, etc. Malathion Hi-Yield Indoor/Outdoor Broad Use; Lilly Miller Multi-Purpose Insect Spray see 'codling moth' above Surround	see comments under Codling Moth permethrin: 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
Walnut husk fly, Western cherry fruit fly	walnut peach apricot cherry	<i>Conventional</i> acetamiprid carbaryl malathion <i>Soft/organic</i> pyrethrin spinosad	Ortho Fruit & Veg. Sevin Malathion Concern Multi-Purpose see above	start applications when fruit in sunniest locations develops a salmon blush spinosad: every 7 days

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.

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