

News/What to Watch For:

Aphids, such as green peach aphid, black cherry aphid, and rosy apple aphid, may be showing up now; if leaves are severely curled, commercial growers should use Admire Pro (or generic) and backyard growers use Ortho Fruit, Flower & Vegetable.

Examine peach leaves for shothole/coryneum blight infections (purplish lesions and holes in leaves); treat with fungicide at shuck split if levels are high.

Thin apples when they are 1/2-inch in diameter, and thin peach fruitlets as early as possible. On apples, thin clusters to 1 apple and to 6 inches apart. Thin peaches to 4-6 inches apart.

Codling Moth Spray Dates and Residential Products, pgs 4-5.

JUST THE BASICS

APPLE & PEAR

- *Codling moth* treatment dates are coming up.
- *Powdery mildew* may show up after bloom.

PEACH/NECTARINE, APRICOT

- If *coryneum blight* has been a problem in your trees, apply chlorothalonil or another fungicide at shuck split stage.
- *Commercial growers* using the Isomate brand of mating disruption for *peach twig borer* can hang dispensers now.

Backyard Grower Information

ALL FRUIT TREES

Aphids

Hosts: apple, peach/nectarine, plum, apricot

- **if leaves are curling severely, use Ortho Fruit, Flower, and Vegetable**

Keep in mind that aphids don't always need to be treated, and even if they are present on many shoots, the tree will still be fine. Many aphid species actually leave the fruit tree for an alternate host (most times weeds or vegetables) for the summer. Horticultural oil (at 1% concentration) or insecticidal soap also work, but these must contact the aphid to be effective.

APPLE, PEAR

Codling Moth

Hosts: apple, pear

- **see page 4 for spray dates, and next page for example management plans**

Apple Powdery Mildew

Hosts: apple, pear

- **continue to watch for powdery mildew on foliage**
- **see page 5 for spray options**



Powdery mildew shows up on newer foliage first, and foliage may become yellowed and distorted.

Backyard Grower Information, continued

Example Backyard spray programs for treating codling moth

Situation	Example Materials	Damage Last Year	Notes on Treatment Program
Organic	Cyd-X, Bt products, pyrethrin, spinosad products, oils	high	Apply first application at “start date.” Repeat 7-10 days later for a total of 3 applications in the first generation. When the “start date” for the 2nd generation is provided, spray every 7-10 days until Sept. 15. Pick a different product to use for each generation.
		low	Apply first application at “start date.” When the “start date” for the 2nd generation is provided, spray every 10-14 days until Sept. 15. Pick a different product to use for each generation.
Conventional	Ortho Fruit & Veg (acetamiprid), Spectracide Triazicide (lambda-cy), malathion, sevin	high	Apply first application at “start date.” Repeat 14 days later for a total of 2 applications in the first generation. When the “start date” for the 2nd generation is provided, spray every 10-18 days until Sept. 15. Pick a different product to use for each generation.
		low	Apply an application at “start date.” Wait until the “start date” for the 2nd generation is provided, and spray on that date, and again 14 days later. Do the same for the 3rd generation. Pick a different product to use for each generation.

PEACH/NECTARINE, APRICOT, PLUM

Coryneum Blight/Shothole

Hosts: peach/nectarine, apricot

- *treat at shuck split stage (shown at far right)*

Coryneum blight is a disease that affects foliage, fruit, and twigs. Foliar injury does not affect the health of the tree, but is a great way to monitor for the activity of this disease. It appears as purplish-tan spots that drop out after a few days, leaving a round hole in the leaf. On fruits, it causes purplish lesions that turn scabby with age.



The rain we had last week was perfect for spread of this disease. If you see foliar lesions now, or have noticed this disease in the past, one of the most important times to apply a fungicide is at or right after the shuck split stage, shown in the far right picture. See page 5 for fungicide options.

Commercial Grower Information

APPLE & PEAR

Codling Moth

Hosts: apple, pear

We have uploaded the dates for when to start preventing codling moth injury (page 4). Keep in mind that how often to treat for codling moth will depend on many factors:

- injury level in prior years
- product you are using
- using mating disruption

On the next page is a table of some different treatment scenarios. It can serve as a starting point to decide what might work for your orchard.

Washington State University entomologists developed one option for first generation treatment, and we have discussed it the past. The idea of this option is to kill eggs of the first generation before they hatch using 1% oil, providing a “clean slate”. Then, a normal insecticide is applied about a week or so later to take care of any new eggs (dates are provided on page 4). This option, called “delayed first cover,” has proven to be effective and economical.

continued on next page

Commercial Grower Information, continued

Example Conventional spray programs for treating codling moth

Situation	Example Materials	Damage Level Last Year	Notes on Treatment Program
Organic - Commercial	Cyd-X, Dipel, Entrust, horticultural oil, azadirachtin products	high	Treatments should be applied every 5-7 days throughout each generation. Use a different product for each (entire) generation. Use virus in the 1st and 3rd generations.
		low	Apply oil at recommended timing (200 DD). Apply "delayed" first cover at recommended timing, and repeat 7 days later. For 2nd and 3rd generations, apply 2 covers in each, one at the start of egg hatch, and one during the period of greatest egg hatch (dates to be provided).
		<i>mating disruption</i>	Apply first cover on entire orchard at start of egg hatch. Use traps to determine when to treat again (7-10 moths/week).
Conventional - commercial	pyrethroids, Imidan, Altacor, Delegate, Belt, Leverage	high	Spray at start of egg hatch. Repeat during period of greatest egg hatch (dates provided). For 2nd and 3rd generations, apply every 14-21 days (depending on material). Use a different product for each generation.
		low	Apply oil at recommended timing (200 DD). Apply "delayed" first cover at recommended timing (350 DD). For 2nd and 3rd generations, apply once at the beginning of the generation. For 3rd generation, apply again at the recommended timing of greatest egg hatch.
		<i>mating disruption</i>	Apply first cover as border spray. Watch pheromone traps (catches of 7-10/week) to determine supplemental treatments.

Fire Blight

Hosts: apple, pear

For much of Utah, there is a risk of fire blight later this week. The risk is greatest for the late flowers when we aren't thinking about fire blight anymore.

Most areas (except much of Utah County, which has resistance) can use the antibiotic, streptomycin, while areas that have resistance should use oxytetracycline.

Fire Blight Activity for May 4 - 7

	Fire blight is active	Fire blight is nearby	No history of blight
Cache County, Iron County	HIGH - EXTREME	CAUTION - HIGH	LOW
Wasatch Front - warmer areas	EXTREME	HIGH	LOW
Wasatch Front - cooler areas, and Price County	HIGH - EXTREME	CAUTION	LOW

PEACH/NECTARINE, APRICOT, PLUM

Peach Twig Borer

Hosts: peach/nectarine, apricot

- *If you are using the Isomate brand of mating disruption for PTB, dispensers can be hung any time.*

- *Hang pheromone monitoring traps now to get biofix.*

Coryneum Blight

Hosts: peach/nectarine, apricot, plum, cherry

- *Treat with a fungicide at shuck split*

The weather conditions have been good for spread of the fungus that causes coryneum blight. Commercial growers can find options by [clicking here](#).

SMALL FRUITS

Raspberry Horntail

Hosts: raspberry

- *treat for adults*

Raspberry horntail is a sawfly that lays eggs in canes. The eggs hatch into larvae that then feed inside the upper canes, causing the tops to wilt and die. Adult horntails will begin emerging from canes that were infested last year, starting next week.

If raspberry horntail is a problem in your area, an insecticide application to prevent egg-laying should go on next week (May 9-12) for areas along the Wasatch Front (one week later in cooler areas). Synthetic pyrethroids and Sevin are effective. Spinosad is another option, but unproven. A second application should be applied 10-14 days later, depending on product residual and when bloom time is projected to begin. Avoid treating during bloom.

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 Generation

The “*Option for Commercial Growers - Delayed First Cover*” is an alternative that may help to reduce sprays. Liberally apply horticultural oil (1%) on the first date, and then apply your regular insecticide on the later date. The oil kills eggs that have been laid on fruit up to that point.

In general, 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.

County	Location	Backyard Growers	Option for Commercial Growers - Delayed First Cover	
		Apply first spray	Apply oil	Apply first insecticide
Box Elder	Perry	May 24	May 22	June 4
	Tremonton	not yet known	not yet known	not yet known
Cache	Logan Airport	not yet known	not yet known	not yet known
	River Heights	not yet known	not yet known	not yet known
Carbon	Price Airport	not yet known	not yet known	not yet known
Davis	Kaysville	May 21	May 19	June 1
Iron	Cedar City Airport	May 23	May 21	June 4
Salt Lake	Benches/Cooler sites	May 25	May 23	June 3
	Most areas	May 19	May 17	May 28
Sevier	Monroe	May 13	May 11	May 27
Tooele	Erda Airport	not yet known	not yet known	not yet known
	Grantsville	May 20	May 18	May 31
Uintah	Vernal Airport	not yet known	not yet known	not yet known
Utah	Alpine	not yet known	not yet known	not yet known
	American Fork	May 22	May 20	June 1
	Genola (CHF)	May 25	May 23	June 4
	Lincoln Point	not yet known	not yet known	not yet known
	Orem (Lindon)	May 18	May 16	May 28
	Payson	May 19	May 17	May 30
	Provo Airport	May 19	May 17	May 29
	Provo Canyon	May 22	May 20	June 1
	Santaquin (South Ridge)	not yet known	not yet known	not yet known
	Tickville (Oak Springs)	not yet known	not yet known	not yet known
West Mountain (Wall)	May 19	May 17	May 29	
Weber	Ogden Airport	May 19	May 17	May 30
	Pleasant View	May 20	May 18	May 31
Wasatch	Heber City	not yet known	not yet known	not yet known
Washington	New Harmony	not yet known	not yet known	not yet known
Wayne	Torrey	May 20	May 18	May 31

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> carbaryl acetamiprid malathion gamma-cyhalothrin <i>Soft/organic</i> spinosad codling moth virus	Sevin, Bonide Fruit Tree Spray, etc. Ortho Max Flower, Fruit, and Veg. Malathion Spectracide Triazicide Green Light, Gardens Alive Bull's Eye, Monterey Cyd-X	acetamiprid: every 14 days carbaryl: every 14 - 21 days malathion: every 7 days gamma-cyhalothrin: every 14 days spinosad: every 7 days codling moth virus can only be purchased online; store in fridge or freezer
Powdery mildew	apple	<i>Conventional</i> myclobutanil <i>Soft/organic</i> neem oil potassium bicarbonate	Spectracide Immunox Garden Safe, Fertilome Triple Action Kaligreen, Monterey Bi-Carb	myclobutanil: lasts 14 days; repeat once neem oil: repeat 1 to 3 times every 5 days potassium bicarbonate: repeat 1 to 3 times every 7 days
Fire blight	apple, pear	streptomycin oxytetracycline	Ferti-Lome Mycoshield	Do not use antibiotic unless necessary; apply streptomycin within 24 h of a wetting event only if fire blight was present last year; oxytetracycline within 12 hr.
Aphids	all	<i>Conventional</i> acetamiprid <i>Soft/organic</i> oil (1%) insecticidal soap	Ortho Max Flower, Fruit, and Veg. Many products, EcoSmart Safer's, Bayer Natria, Bonide	oil: allow 4 hours-time for application to dry before temps reach 85 or above. oil and soap: spray needs to cover aphids to be effective
Coryneum blight	peach, apricot	<i>Conventional</i> chlorothalonil captan myclobutanil	Fung-onil, Ortho Max Disease Control Captan Spectracide Immunox	Apply once at shuck split stage chlorothalonil: do not use after shuck split captan, Immunox: use as a preventive before a rain

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