

## News/What to Watch For:

Aphids, such as green peach aphid, black cherry aphid, and rosy apple aphid, continue to build in numbers; due to curled leaves, trees may need to be treated with a systemic such as Admire Pro or Ortho Max Fruit & Vegetable, instead of soap or oil.

Examine apple and peach leaves for shot hole infections (purplish lesions and holes in leaves); treat with fungicide if levels are high.

Thin apples when they are 1/2-inch in diameter, and thin peaches now, or in the next few weeks (earlier is better). On apples, thin clusters to 1 apple and to 6 inches apart. Thin peaches to 4-6 inches apart.

Updated Codling Moth Spray Dates and Residential Products, pgs 3-4.

## JUST THE BASICS: Current Treatments


### APPLE & PEAR


- *Codling moth* treatment dates are coming up
- *Fire blight* risk is EXTREME. Apply an antibiotic for fire blight only if there are still open blossoms.

### PEACH/NECTARINE, APRICOT

- If *coryneum blight* has been a problem in your trees, apply chlorothalonil or another fungicide at shuck split stage.
- *Commercial growers* should make a decision on mating disruption for *peach twig borer*.

## Insect and Disease Information

: information for residential settings

: information for commercial orchards

### APPLE and PEAR

#### Codling Moth

**Hosts:** apple, pear

- see [page 5](#) for when to treat

We have uploaded the dates for when to start preventing codling moth injury. Keep in mind that—if you want clean fruit—this first application will not be the only codling moth treatment. But 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 page 2, I have created a table of some different treatment scenarios. It can serve as a starting point to decide what might work for your trees. Contact me with any further questions.

#### Fire Blight

**Hosts:** apple, pear

- **protect open blossoms**

For the next 7 days, the risk of fire blight infection is **EXTREME** for all areas of northern Utah. Wherever there are late blooms, they are at risk for infection. Most areas (except much of Utah County, which has resistance) can use streptomycin, while areas that have resistance should use oxytetracycline (MycosShield) or Kasumin.

Most diligent backyard growers should not need to apply an antibiotic. Instead, monitor trees closely in the next several weeks. Prune out new infections immediately (on a dry day).



### Example spray programs for treating codling moth

Situation	Example Materials	Damage Level Last Year	Notes on Treatment Program
<b>Organic - Commercial</b>	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).
<b>Organic - Backyard</b>	Cyd-X, Bt products, pyrethrin, spinosad products, oils	high	Apply first application at “start date.” Repeat 7-10 days later for a total of 2 applications in the first generation. For the 2nd and 3rd generations, apply every 7-10 days until Sept. 15. Pick a different product to use for each generation.
<b>Conventional - commercial</b>	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	Spray at start of egg hatch. Repeat during period of greatest egg hatch (dates provided). 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.
<b>Conventional - Backyard</b>	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. Starting with the “start date” for 2nd generation (provided), apply every 10-18 days until Sept. 15. Pick a different product to use for each generation.

## PEACH/NECTARINE, APRICOT, CHERRY

### Peach Twig Borer

**Hosts:** peach/nectarine

- **commercial growers hang mating disruption**

There was a report of peach twig borer trap catch in Orem. Commercial growers who are using Isomate mating disruption (red loops) should have already hung dispensers.

If using Checkmate (white cards), remember that this product lasts 90 days. With this earlier biofix date, the peach twig borer “season” will be over 130 days in some areas. The options are to either hang dispensers and spray fruit later in the season, or hang them on June 15 and spray trees early in the season. Our on-farm trials showed that hanging dispensers later yielded the best benefits both in yield and in cost savings.

For residential growers, we will report treatment timing dates in the next advisory. In general, the time to treat will be the last week of May.

**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 4-8) for areas along the Wasatch Front. 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.

In cooler areas, emergence (and treatment) will be about 2 weeks later.

## SMALL FRUITS

### Raspberry Horntail



## 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

In the table, choose either Option A or B when starting your codling moth sprays.

**Option A** is what most people will do. Apply insecticide at the recommended date, and repeat.

**Option B** 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. This year, there will be 3 generations.

County	Location	Option A	Option B	
		Apply first spray	Apply oil	Apply first insecticide
Box Elder	Perry	May 10	May 7	May 24
	Tremonton	May 17	May 14	May 28
Cache	Logan Airport	May 27	May 25	not yet known
	River Heights	May 26	May 24	not yet known
Carbon	Price Airport	May 23	May 21	June 3
Davis	Kaysville	May 11	May 8	May 23
Iron	Cedar City Airport	May 20	May 17	May 31
Salt Lake	Benches/Cooler sites	May 20	May 18	May 29
	Most areas	May 6	May 4	May 18
Sevier	Monroe	May 8	May 5	May 22
Tooele	Erda Airport	May 11	May 9	May 24
	Grantsville	May 8	May 6	May 22
Uintah	Vernal Airport	not yet known	not yet known	not yet known
Utah	Alpine	May 15	May 13	May 28
	American Fork	May 10	May 8	May 23
	Genola (CHF)	May 6	May 4	May 22
	Lincoln Point	May 15	May 12	May 28
	Orem (Lindon)	May 9	May 6	May 20
	Payson	May 9	May 6	May 21
	Provo Airport	May 10	May 8	May 21
	Provo Canyon	May 20	May 18	May 29
	Santaquin (South Ridge)	May 13	May 11	May 27
	Tickville (Oak Springs)	May 22	May 20	not yet known
	West Mountain (Wall)	May 10	May 8	May 22
Weber	Ogden Airport	May 11	May 8	May 23
	Pleasant View	May 6	May 4	May 19
Wasatch	Heber City	not yet known	not yet known	not yet known
Washington	New Harmony	May 16	May 13	May 27
Wayne	Torrey	May 14	May 12	May 26

## 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	<p><i>Conventional</i> carbaryl acetamiprid malathion gamma-cyhalothrin</p> <p><i>Soft/organic</i> oil (1%) spinosad</p> <p>codling moth virus</p>	<p>Sevin, Bonide Fruit Tree Spray, etc. Ortho Max Flower, Fruit, and Veg. Malathion Spectracide Triazicide</p> <p>Many products Green Light, Gardens Alive Bull's Eye, Monterey Cyd-X</p>	<p><b>acetamiprid:</b> every 14 days <b>carbaryl:</b> every 14 - 21 days <b>malathion:</b> every 7 days <b>gamma-cyhalothrin:</b> every 14 days <b>hort. oil:</b> lasts 5-7 days for killing eggs; use at beginning of each generation; apply at 1% rate only when temperatures are below 80 F; follow up with a different product <b>spinosad:</b> every 7 days <b>codling moth virus</b> can only be purchased online</p>
Powdery mildew	apple	<p><i>Conventional</i> myclobutanil</p> <p><i>Soft/organic</i> neem oil</p> <p>potassium bicarbonate</p>	<p>Spectracide Immunox</p> <p>Garden Safe, Fertlome Triple Action Kaligreen, Monterey Bi-Carb</p>	<p><b>myclobutanil:</b> lasts 14 days; repeat once <b>neem oil:</b> repeat 1 to 3 times every 5 days <b>potassium bicarbonate:</b> repeat 1 to 3 times every 7 days</p>
Fire blight	apple, pear	<p>streptomycin oxytetracycline</p>	<p>Ferti-Lome Mycoshield</p>	<p>Do not use antibiotic unless necessary; apply <b>streptomycin</b> within 24 h of a wetting event only if fire blight was present last year; <b>oxytetracycline</b> within 12 hr.</p>
Aphids	all	<p><i>Soft/organic</i> oil (1%) insecticidal soap</p>	<p>Many products, EcoSmart Safer's, Bayer Natria, Bonide</p>	<p><b>oil:</b> allow 4 hours-time for application to dry before temps reach 85 or above.</p>
Coryneum blight	peach, apricot	<p><i>Conventional</i> chlorothalonil</p> <p>captan</p>	<p>Fung-onil, Ortho Max Disease Control Captan</p>	<p>Apply once at shuck split stage <b>chlorothalonil:</b> do not use after shuck split <b>captan:</b> use as a preventive before a rain</p>

**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

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