



## News/What to Watch For:

Examine apple leaves for fresh powdery mildew on apple and peach leaves for shot hole infections (holes in leaves)  
New spray timing dates for codling moth  
Spray information, pages 4-5

## Bud Stages

Some apple petals were hit by a light frost, but that shouldn't affect pollination or fruit set. A cool week extends the bloooooom.

### Davis, Box Elder, Salt Lake, and Weber Counties:

Apples: Full bloom  
Cherries (tart): Full bloom - petal fall  
Peaches: Petal fall  
Pears: Full bloom - petal fall

### Cache County:

Apples: King bloom  
Cherries (tart): Full bloom  
Peaches: Full bloom  
Pears: First bloom

### Carbon County:

Apples: King bloom  
Apricots: Petal fall  
Peaches: Full bloom  
Pears: Full bloom

### Utah County:

Apples: Full bloom  
Cherries (tart): Full bloom - petal fall  
Peaches: Petal fall  
Pears: Full bloom - petal fall

## Insect and Disease Activity/Info

*Specific spray information found on last two pages.*

### APPLE AND PEAR

#### Codling Moth

Most areas of Utah and Salt Lake County have a biofix (first moth flight) of May 5, with a few exceptions. We are confirming the date on the remaining areas. No moth flight has occurred in Davis County, Carbon County, or Cache County.

Castle Valley: May 5  
Orem: April 29  
Provo: May 5  
Santaquin (heavy pressure block): May 5  
Genola: May 5  
Perry: May 5  
Pleasant View: May 5  
Tooele: May 12

Estimated spray timing is shown under the "spray recommendation" sections. The most common recommendation is to apply a material at 220 degree days after biofix. This is the timing when codling moth eggs first start to hatch. They continue hatching until the end of the generation, which is at 1020 degree days after biofix, after which, a 2nd generation begins. Be sure that material you apply has lasting residues (or re-apply) for the time period of maximum egg hatch (340-640 DD). I will add the actual dates of this timing to the table in the next advisory.

#### Pear Psylla

Pear psylla is a very small insect that can cause a lot of harm if left untreated. It can multiply rapidly and can also develop resistance to pesticides. It feeds by sucking nutrients from the leaves, creating enormous amounts of honeydew. Their feeding also kills the leaf tissue.

Dormant sprays usually take care of this pest, but if no dormant spray was applied and you had a problem with pear psylla last year, apply a treatment at petal fall.

## Insect and Disease Activity, continued

### Fire Blight

Apples are in full bloom, and in some areas, there is a danger of infection as the temperature warms this weekend. Keep in mind that moisture is also needed for infection to occur. This can come in the form of rain or heavy dew.

In the forecasting shown below, the “warnings” are for a generic orchard that has a history of fire blight. If you did not have fire blight in your orchard last year, your warning level would be reduced. The levels are:

**Low:** low risk of infection, only treat areas adjacent to active cankers if a wetting event occurs

**Caution:** treat orchard only if cankers are active and if wetting event occurs only

**High:** treat orchard if active cankers are in nearby orchards and wetting event occurs

**Extreme:** a very high risk for infection; treat entire orchard

Location	Date			
	5/15	5/16	5/17	5/18
Pleasant View	none	none	low	high
SLC	none	none	high	extreme
Alpine	none	none	none	caution
Payson	none	none	caution	high
Provo	none	none	low	high
Santaquin	none	none	high	high
Kaysville	none	none	high	extreme

These types of bugs usually feed in nearby fields, hillsides, etc. on weeds, alfalfa, and other low vegetation, but they can also move into orchards. Keep an eye out in orchards near open hillsides and fields. A few plant bugs (*Lygus* species) were observed in peaches in Utah County. Their feeding damage causes cat-facing of peaches, and they can also feed on apples.

### Coryneum Blight (Shot Hole)



Shot hole lesions are starting to appear on leaves in Box Elder County. Shot hole (or coryneum blight) overwinters in buds and spreads from there to leaves and later in the season, to developing fruit. On the leaves, you will see small round holes, with the center of the lesion sometimes still attached. Look for developing lesions and treat if necessary to protect fruit for later in the season.

## PEACH, NECTARINE, APRICOT

### Cat-Facing Insects (lygus bug, stink bug)



# Degree Day Accumulations and Insect Development

## Upcoming Monitoring/Insect Activity

By Insect (in order of appearance)	
Apple powdery mildew (PM)	Look for small white lesions on new foliage
Green peach aphid (GPA)	Look for colonies on peach and nectarine
Black cherry aphid (BCA)	Watch terminals for leaf-curling and feeding
Campylomma bug (CB)	Look for small nymphs in flowers
White apple leafhopper (WALH)	Look for nymph activity
Pear psylla (PS)	Look for honeydew droplets
Spotted tentiform leafminer (STL)	Adult flight at 115-205 DD (base 50)
Codling moth (CM)	Egg-laying begins approx. 158 DD (after biofix)
San Jose scale (SJS)	First flight at 190-300 DD (base 50)

By Host (see abbrev. at left)	
<b>Apple</b>	RAA, ERM, CB, WALH, STL, PM
<b>Cherry</b>	BCA
<b>Peach</b>	GPA
<b>Pear</b>	PS

## Degree Day Accumulations [\(click here](#) for more information on degree days)

March 1 - Tuesday, May 13

County	Location	Base 50	Codling Moth (post biofix)	Western Cherry Fruit Fly (base 41)
<b>Box Elder</b>	Perry	168	40	454
<b>Cache</b>	North Logan	164	---	414
	Providence	141	---	365
	Smithfield	155	---	357
<b>Carbon</b>	Price	171	---	459
<b>Davis</b>	Kaysville	174	---	469
<b>Grand</b>	Castle Valley	471	80	917
<b>Salt Lake</b>	SLC	214	49	551
	West Valley City	243	47	594
<b>Tooele</b>	Erda	162	---	467
	Grantsville	287	---	642
	Tooele	273	25	630
<b>Utah</b>	Alpine	176	---	454
	Genola	232	54	540
	Lincoln Point	194	---	468
	Orem	184	68	466
	Payson	204	---	484
	Provo	243	54	549
	Santaquin	194	46	472
	West Mountain	224	---	514
<b>Weber</b>	Pleasant View	186	44	493

“Base 41” and “base 50” refer to the lower temperature threshold at which certain insects develop. For example, no codling moth development occurs below 50 degrees.

## Spray Materials - Commercial Applicators

**NOTE:** If your trees are in bloom, we do not recommend applying any pesticides unless you are controlling fire blight with antibiotics. Although it is legal to use "softer" materials such as Bt or spinosad during bloom, we still recommend waiting until the petal fall stage to make applications to prevent harming pollinators.

Target Pest	Host	Chemical	Example Brands	Amount per acre	REI	Comments
Rosy apple aphid	apple	acetamiprid	Assail	1.7 oz	12 h	
Campylocoma	apple	acetamiprid	Assail	1.7-3.4 oz	12 h	
Codling moth	apple, pear	novaluron pyriproxyfen methoxyfenozide	Rimon Esteem Intrepid	30-50 oz 4-5 oz 16 oz	12 h 12 h 4 h	insect growth regulators to kill eggs already laid as well as newly laid eggs (see timing below)
Codling moth	apple, pear	acetamiprid deltamethrin methoxyfenozide phosmet spinetoram thiacloprid codling moth virus	Assail Battalion Intrepid Imidan Delegate Calypso Virosoft, etc	3.4 oz 7-14 oz 16 oz 5.33 lbs 6-7 oz 4-8 oz ---	12 h 12 h 4 h 5 d 4 h 12 h ---	<ul style="list-style-type: none"> <li>larvicides, adulticides for 220 DD timing (see table below)</li> <li>ensure good coverage for effective control</li> <li>virus must be applied every 7 days</li> </ul>
Western flower thrips	apple, nectarine	spinosad	Success	6-8 oz	4 h	
Cat-facing bugs	varies	endosulfan lambda-cyhalothrin	Thionex Warrior	4 lbs 2.5-5 oz	24 h 24 h	
Powdery mildew	apple	potassium bicarbonate myclobutanil trifloxystrobin triflumizole fenarimol boscalid/pyraclostrobin	Kaligreen Rally Flint Procure Rubigan Pristine	2.5-3 lb 5 oz 2-2.5 oz 8-16 oz 12 oz 14.5-18 oz	4 h 24 h 12 h 12 h 12 h 12 h	
Fire blight	apple, pear	streptomycin oxytetracycline	Agri-mycin Mycoshield	check label		apply within 24 h of a wetting event only if fire blight was present last year

**Spray Timing for Codling Moth** (The forecasting of these dates will become more accurate as the actual spray timing recommendation draws closer. Please check this chart each week for updated dates.)

County	Location	Biofix	Timing (75 DD) for Ovicides (IGRs)	First Egg Hatch (220 DD); Larvicides	End of First Gen. (1020 DD)
Box Elder	Perry	May 5	May 16 and on	May 27	July 7
Grand	Castle Valley	May 5	May 15 and on	May 23	June 30
Salt Lake	SLC	May 5	May 15 and on	May 26	July 3
	West Valley City	May 5	May 15 and on	May 24	July 6
Tooele	Tooele	May 12	May 17 and on	May 25	July 9
Utah	Genola	May 5	May 15 and on	May 27	July 8
	Orem	April 29	May 13 and on	May 25	July 5
	Provo	May 5	May 17 and on	May 28	July 14
	Santaquin	May 5	May 17 and on	May 29	July 11
Weber	Pleasant View	May 5	May 16 and on	May 28	July 8

## Spray Materials - Residential Applicators

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

In addition, we recommend waiting until the petal fall (or pre-bloom for Cache County) stage to make applications to prevent harming pollinators.

Target Pest	Host	Chemical	Example Brands	Comments
Codling moth	apple, pear	azadirachtin carbaryl esfenvalerate malathion permethrin pyrethrin spinosad	Azatin Sevin, Bonide Fruit Tree Spray Ortho Bug-B-Gone Malathion Bayer Advanced Dust Concern Multi-Purpose Green Light	Rotate among chemical classes to prevent resistance. Most are applied every 7 days, but read the label.  See spray timing below
Rosy apple aphid	apple	carbaryl esfenvalerate malathion neem oil permethrin	Bayer Advanced Ortho Bug-B-Gone Bonide Green Light Lilly Miller	
Powdery mildew	apple	bayleton lime sulfur propiconazole neem oil potassium bicarbonate	Bonide Lilly Miller Ferti-Lome Garden Safe Kaligreen	do not apply lime sulfur when temperature is over 75 degrees F
Fire blight	apple, pear	streptomycin oxytetracycline	Ferti-Lome Mycoshield	apply within 24 h of a wetting event only if fire blight was present last year

**Spray Timing for Codling Moth** (The forecasting of these dates will become more accurate as the actual spray timing recommendation draws closer. Please check this chart each week for updated dates.)

County	Location	Begin Spray Applications	End of First Generation
Box Elder	Perry	May 27	July 7
Grand	Castle Valley	May 23	June 30
Salt Lake	SLC	May 26	July 3
	West Valley City	May 24	July 6
Tooele	Tooele	May 25	July 9
Utah	Genola	May 27	July 8
	Orem	May 25	July 5
	Provo	May 28	July 14
	Santaquin	May 29	July 11
Weber	Pleasant View	May 28	July 8

**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](mailto:marion.murray@usu.edu)

[click here](#) for archived advisories