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## Bud Phenological Stages

### Davis County, Box Elder County, Salt Lake County, Weber County:

Apples: First bloom-Full bloom  
Apricots: Green fruit  
Tart Cherries: First bloom  
Sweet Cherries: Full bloom  
Peaches: Post bloom  
Pears: First bloom-Full bloom

### Cache County:

Apples: Tight cluster - first pink  
Cherries: Open cluster  
Peaches: First bloom  
Pears: First white

### Utah County:

Apples: First bloom  
Tart Cherries: First bloom  
Sweet Cherries: Full bloom  
Peaches: Post bloom  
Pears: First bloom-Full bloom

Terminology source:  
Washington State University

## Upcoming Monitoring/Insect Activity

San Jose Scale	Male flight at 185-325 DD
Oriental Fruit Moth	First flight at 160-200 DD (base 50)
Codling Moth	First flight at 190-260 DD (base 50)
European red mite	Egg hatch finish by 180-280 DD (base 50)
Campyomma bug	Egg hatch begins at first pink (apples)
Oblique banded leafroller	Larvae active at 64-140 DD (base 50) Hang traps after petal-fall (apples)
White Apple Leafhopper	Nymph emergence 100 DD First adults 550 DD (base 50)

## Degree Day Accumulations, March 1 - Wednesday, April 18

County	Location	Codling Moth, Peach Twig Borer (Base 50)	Western Cherry Fruit Fly (Base 40)
<b>Box Elder</b>	Perry	174	404
<b>Cache</b>	North Logan	85	231
	Richmond	135	310
	River Heights	120	300
<b>Carbon</b>	Price	231	454
<b>Davis</b>	Kaysville	169	402
<b>Salt Lake</b>	SLCC	215	485
	West Valley City	190	444
<b>Tooele</b>	Erda	252	504
	Grantsville	276	539
<b>Utah</b>	Alpine	157	387
	Genola	212	444
	Lincoln Point	164	377
	Payson	170	381
	Provo	251	488
	Santaquin	162	375
	West Mountain	192	416
<b>Weber</b>	Pleasant View	183	412

“Base 40” and “base 50” refer to the lower temperature threshold at which certain insects develop.

## General Information

### Information on Frost Damage:

Kaysville, UT reported significant bud kill on their apples from recent frosts. On the earlier developing varieties, almost 3 out of every 4 flowers were damaged. Keep in mind, however, that even a 50% loss is not disastrous since a 25% fruit set can be adequate.

Typically the king bloom (the first and largest flower in the bloom cluster) is the most susceptible--which is unfortunate because the king bloom is also the most desirable, creating the largest apple. Buds occurring lower in the tree canopy are also more susceptible to damage than those higher up.

The way to tell if your apple buds are damaged is to split the flower down the middle and look for brown or black plant tissue within the floral cup. Healthy tissue is creamy yellow in color.



**Frost-killed flower pistil**



**Healthy flower pistil**

## Disease Activity

### APPLES AND PEARS

#### *Fire blight:*

The fire blight model (Cougarblight) indicates LOW to MODERATE risks of blossom infection in the near future. Commercial orchards with susceptible apple/pear varieties, open blossoms, and a history of fire blight might need a bactericide application (streptomycin or oxytetracycline) in the near future if rain is forecast.

#### **Apple Powdery Mildew:**

Powdery mildew is the most common disease of apple trees in Utah, causing stunting and distortion. Apple cultivars such as 'Jonathan', 'Jonagold', 'Idared', 'Rome', and 'Gala' are most susceptible to this fungus, whereas 'Red' and 'Golden Delicious' are more resistant. Powdery mildew overwinters as mycelia (fungal strands) under bud scales and then spreads by wind and rain splash. This fungus needs warm days and moist nights, and this spring has been somewhat dry. But if this disease has caused you problems, consider a powdery mildew control program, which begins at first-pink and continues into July (when terminal buds set). A fungicide spray every 2-3 weeks (for susceptible cultivars) should keep trees protected and reduce inoculum levels next year.

Homeowners can remove infected shoots in spring, and this will help reduce infections in new shoots.

### PEACHES AND NECTARINES

#### *Coryneum blight:*

Continue to examine orchards for gumming on dark, unopened buds and reddish, sunken lesions, and remove them.



**Bud killed by coryneum blight**

## Insect Activity

### APPLES AND PEARS

#### Codling Moth:

We have reports of a biofix in Orem and Pleasant View, and are confirming this. We predict that biofixes in other locations will happen this coming week or soon thereafter.

Once we know biofix, we can provide an estimate of spray dates, based on local weather data, short-term weather forecasts, and 30-year temperature averages. We will provide spray dates that target three different stages of the insect:

pre-egg laying (50-75 days after biofix)

early egg-laying (100-200 days after biofix)

larval emergence (200-250 days after biofix)

The projected timing dates of the spray period will be updated as current weather data become available.

#### Woolly Apple Aphid

Woolly apple aphid is a native aphid that feeds on roots as well as on stems. It causes galls where it feeds, and heavy feeding can weaken the tree. They spend their winter mostly on roots, but a few will stay in protected sites above ground. When active, they secrete a waxy, cottony coating. It was seen this week in Davis and Utah counties on suckers, within old pruning scars, and on stems.

Many natural enemies can control this aphid, but if the population reaches extreme levels (no threshold has been set), then consider a broad-spectrum insecticide such as diazinon, lorsban, or horticultural oil later in the season (early to mid-July).



#### Speckled Green Fruitworm:

I observed a few larvae of this moth in Utah county. This fruitworm species targets apple, pear, and cherry, as well as several ornamental trees. It is generally not a pest to be concerned about, except in high populations when it can damage fruit. The young larvae feed on flowers and leaves, and the older ones also feed on fruit. The larvae have a pale green head, white speckles against a green body (although it can also be brown) and white lines running along its back and sides.

Pesticides that are used for other insects such as codling moth will also treat the fruitworm. Examples include Bt, spinosad (Success, Entrust, Conserve), and other broad-spectrum insecticides.



## Current Spray Timings

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

#### Commercial Growers:

Apple powdery mildew every 2 weeks until July: Bayleton, Flint, Procure, Rally, Rubigan, Sovran, and sulfur formulations, among many other materials

#### Homeowners:

Apple powdery mildew every 2 weeks until July: Bayleton, Bonide and sulfur formulations

# Bud Phenological Stages

## Apple



## Pear



## Peach



## Apricot



**Precautionary Statement:** All pesticides have benefits and risks, however following the label will maximize the benefits and reduce risks. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use.

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