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Jump to CODLING MOTH
Treatment Timings:
Commercial Grower
Homeowner

Bud Phenological Stages

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

Apples: Full bloom-Petal fall
Tart Cherries: Full bloom-Petal fall

Sweet Cherries: Petal fall
Peaches: Shuck split
Pears: Petal fall

Cache County:

Apples: First bloom-Bloom
Sweet cherries: Petal fall
Peaches: Petal fall
Pears: Full bloom
Apricot: In the shuck

Utah County:

Apples: Full bloom-Petal fall
Tart Cherries: Petal fall
Sweet Cherries: In the shuck
Peaches: Shuck split
Pears: Petal fall

Upcoming Monitoring/Insect Activity

San Jose Scale	Male flight at 185-325 DD (base 51F)
Peach twig borer	Hang traps at 300 DD (base 50F) First flight at 400 DD (base 50F)
Western Cherry Fruit Fly	Hang traps at 700 DD (base 41F)
Codling Moth	Eggs laid: 50-200 DD (after biofix) Egg hatch: 220-920 DD (after biofix)
European red mite	Egg hatch ends: 180-280 DD (base 50F)
Oblique banded leafroller	Hang traps in apples 800 DD (base 43F)
White Apple Leafhopper	First adults 550 DD (base 50F)

Degree Day Accumulations, as of Wednesday, May 2

County	Location	Codling Moth, Peach Twig Borer (Base 50°F)		Western Cherry Fruit Fly (Base 41°F)
		DD since March 1	DD since biofix*	DD since March 1
Box Elder	Perry	271	89	590
Cache	North Logan	157	19	376
	Richmond	241	--	500
	River Heights	192	57	437
Carbon	Price	301	31	594
Davis	Kaysville	266	63	588
Salt Lake	SLCC	346	--	711
	West Valley City	306	52	655
Tooele	Erda	385	--	720
	Grantsville	412	--	772
Utah	Alpine	250	47	560
	Genola	327	92	654
	Lincoln Point	262	--	560
	Payson	269	63	570
	Provo	379	34	710
	Santaquin	255	75	553
Weber	West Mountain	294	45	601
	Pleasant View	289	121	609

*"Base 41F" and "base 50F" refer to the lower temperature threshold at which certain insects develop.; ***Biofix** is the date of consistent moth flight.

Insect Activity

APPLES AND PEARS

Codling Moth:

Dates of confirmed biofixes (consistent moth flight):

Alpine: April 29

Genola: April 26

Kaysville: April 28

North Logan: April 30

Orem-high CM population: April 8

Orem-moderate CM population: April 14

Payson: April 28

Perry, Willard, Brigham City: April 25

Pleasant View: April 16

Price: April 29

Provo: April 30

River Heights: April 28

Santaquin: April 26

Tooele: April 30

West Mountain: April 29

West Valley City: April 29

Spray dates and insecticide product recommendations for three different stages of the insect are provided under “[Current Spray Timings](#).” There is a section for commercial growers and one for homeowners.

In general, controls target larvae BEFORE they enter the fruit. The most critical time period for control will occur at 340-640 DD after biofix, where approximately 70% of the 1st generation larvae is hatching.

It is important for commercial growers to continue to monitor the codling moth population with pheromone traps throughout the season. This information will help you to determine how well your treatment program is working. If you are using Mating Disruption, use two different types of lures:

- one trap with a 10x or DA-Combo lure to monitor moth flight (the 10x lure has a very high dose of pheromone for male moths and the Combo lure has a “pear ester” that also attracts female moths), and
- one trap with a 1x lure; if you catch NO moths in this trap, you know your mating disruption is working (the 1x lures have a lower dose of pheromone that trap male moths only)

If you are not using mating disruption, use a 1x lure.

PEACHES AND NECTARINES

Green Peach Aphid:

Continue to monitor your peach and nectarines in the coming weeks by beating a branch over a cloth tray. If you have greater than 75 aphids per sampling area, treat with Asana, Thiodan, Warrior, or Diazinon.

Peach Twig Borer:

It is approaching time for commercial growers to hang peach twig borer traps (at 300 DD). Hang traps at 6-7 ft. high, with the trap opening parallel to the prevailing wind direction. Hang an additional trap in “hot spots” where flight may be seen earliest. Expect to see the first few moths at about 400 DD.

Disease Activity

APPLES AND PEARS

Fire blight:



The fire blight model (Cougarblight) indicates VERY HIGH risk of infection for today and drops to HIGH tomorrow (May 3). For commercial orchards who have already made an application, your trees may be already protected. The antibiotics for use last:

Mycoshield: lasts 4-6 days

Agri-mycin: lasts 3-4 days

PEACHES AND NECTARINES

Coryneum blight:

The typical “shot-hole” lesions were observed on leaves in Box Elder county. This pathogen is spread primarily by rain, but because it can survive in dry conditions and in cold temperatures, it can be difficult to control.

Lesions can be seen on twigs, leaves, and fruits. On twigs, it forms a gummy canker; on leaves, it develops as a small, round, spot that eventually drops out producing a “shot-hole” effect; on fruit, small reddish spots are marked with a gummy exudate.



Commercial growers can apply a treatment at shuck-fall and again in late autumn.

Homeowners can prune out any infected twigs and do not let sprinklers spray water onto leaves or branches.

Current Spray Timings - Commercial Growers

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

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

Coryneum blight: Abound, Captan, Ziram, Pristine

Fire blight:

Utah County: because of the high resistance of fire blight to streptomycin, we recommend ONLY using oxytetracycline (Mycoshield) until a new antibiotic is available.

All other locations: streptomycin (Agri-mycin)

Codling moth:

The projected timing dates of the spray periods shown below will be updated each week. Spray dates are dependent on what pest stage is targeted. **The most important timings are at 220-250 DD after biofix and again at 340-640 DD after biofix.

County	City	Spray Dates to Target Pre-Egg Laying	Spray Dates to Target Eggs	**Spray Dates to Target First Larvae Hatch	**Spray Dates to Target Max. Larvae Hatch
Box Elder	Perry, Willard, Brigham	----	May 3 - May 15	May 17 - May 20	May 28 - June 16
Cache	North Logan	May 8 - May 12	May 16 - May 28	May 30 - June 2	June 10 - June 30
	Richmond	----	----	----	----
	River Heights	May 2 - May 6	May 10 - May 24	May 26 - May 29	June 7 - June 27
Carbon	Price	May 6 - May 10	May 14 - May 27	May 29 - June 1	June 9 - June 29
Davis	Kaysville	----	May 7 - May 18	May 19 - May 23	May 30 - June 17
	West Valley City	May 3 - May 6	May 9 - May 20	May 22 - May 24	May 31 - June 18
Tooele	Erda	----	----	----	----
	Grantsville	----	----	----	----
Utah	Alpine	May 2 - May 7	May 10 - May 22	May 24 - May 27	June 3 - June 22
	Genola	----	May 3 - May 15	May 17 - May 20	May 27 - June 16
	Lincoln Point	----	----	----	----
	*Orem-High population	----	April 28 - May 5	May 7 - May 12	May 20 - June 9
	*Orem-Moderate pop.	----	April 29 - May 7	May 9 - May 13	May 21 - June 10
	Payson	May 2 - May 4	May 8 - May 20	May 22 - May 25	June 2 - June 21
	Provo	May 4 - May 7	May 10 - May 20	May 21 - May 24	May 30 - June 17
	Santaquin	----	May 6 - May 19	May 21 - May 24	June 1 - June 20
	West Mountain	May 3 - May 6	May 9 - May 20	May 21 - May 24	May 31 - June 18
Weber	Pleasant View	----	May 1 - May 12	May 14 - May 17	May 25 - June 14

*Due to a high population of codling moth in certain Orem areas, we had an early date for moth flight this year. If you have severe “wormy” apples, use the information for the “high population.” Otherwise, use the information for “moderate population.”

Materials for codling moth control:

pre-egg-laying: Rimon	first larvae hatch: Assail, Asana, Calypso, Carbaryl, Clutch, Diazanone, Guthion, Codling Moth Granulosis Virus, Imidan, Warrior, Sevin, Malathion
early egg-laying: Horticultural oil, Esteem, Confirm, Intrepid, Azatin	maximum larvae hatch: same as above

*Reapply insecticides based on the residual period (i.e., protection interval) of the product used, and be sure to rotate among pesticide classes.

Current Spray Timings - Homeowners

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

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

Fire blight: Ferti-lome fire blight spray (streptomycin) is available; apply only if necessary

Codling moth:

The projected timing dates of the spray periods shown below will be updated each week. The “First Spray” is at 220-250 DD after biofix, when larvae just begin to hatch, and the “second spray” is 340-640 DD after biofix, when the most larvae are hatching.

County	City	First Spray	Second Spray
Box Elder	Perry, Willard, Brigham	May 17 - May 20	May 28 - June 16
Cache	North Logan	May 30 - June 2	June 10 - June 30
	Richmond	----	----
	River Heights	May 26 - May 29	June 7 - June 27
Carbon	Price	May 29 - June 1	June 9 - June 29
Davis	Kaysville	May 19 - May 23	May 30 - June 17
	West Valley City	May 22 - May 24	May 31 - June 18
Tooele	Erda	----	----
	Grantsville	----	----
Utah	Alpine	May 24 - May 27	June 3 - June 22
	Genola	May 17 - May 20	May 27 - June 16
	Lincoln Point	----	----
	*Orem-High population	May 7 - May 12	May 20 - June 9
	*Orem-Moderate pop.	May 9 - May 13	May 21 - June 10
	Payson	May 22 - May 25	June 2 - June 21
	Provo	May 21 - May 24	May 30 - June 17
	Santaquin	May 21 - May 24	June 1 - June 20
West Mountain	May 21 - May 24	May 31 - June 18	
Weber	Pleasant View	May 14 - May 17	May 25 - June 14

*Due to a high population of codling moth in certain Orem areas, we had an early date for moth flight this year. If you have severe “wormy” apples, use the information for the “high population.” Otherwise, use the information for “moderate population.”

Materials for codling moth control: Sevin, Malathion, *Bacillus thuringiensis* (Dipel), and spinosad (Success, Entrust) -- Bt and spinosad must be applied every 3 - 10 days to be effective.

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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