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Upcoming Monitoring/Insect Activity

Peach twig borer	First flight ends at 400 DD after biofix (base 50F)
Western Cherry Fruit Fly	3% flight at 1060 DD (base 41F)
Codling Moth	Adult peak flight: 350-580 DD (after biofix) Larval hatch: 220-920 DD (after biofix)
Oblique banded leafroller	Moth flight at 832-1000 DD (base 43F)
White Apple Leafhopper	First adults 550 DD (base 50F)
San Jose Scale	Peak crawler emergence 600-700 DD (after biofix)

Jump to Treatment Timings:

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Degree Day Accumulations, as of Wednesday, June 6

County	Location	Codling Moth, Peach Twig Borer (Base 50°F)			Western Cherry Fruit Fly (Base 41°F)
		DD since March 1	CM DD since biofix*	PTB DD since biofix*	DD since March 1
Box Elder	Perry	753	570	404	1344
Cache	North Logan	514	376	216	962
	Richmond	601	345	201	1097
	River Heights	600	416	262	1089
Carbon	Price	748	478	----	1294
Davis	Kaysville	729	526	344	1317
Salt Lake	SLCC	845	581	381	1485
	West Valley City	834	580	383	1471
Tooele	Erda	975	571	----	1601
	Grantsville	1003	598	----	1654
	Tooele	989	466	----	1634
Utah	Alpine	669	466	302	1232
	Genola	766	525	332	1345
	Lincoln Point	702	490	316	1260
	Orem	796	579	337	1393
	Payson	738	532	379	1309
	Provo	792	446	321	1386
	Santaquin	695	515	356	1254
	West Mountain	718	467	324	1273
Weber	Pleasant View	780	631	447	1396

*“Base 41F” and “base 50F” refer to the lower temperature threshold at which certain insects develop

***Biofix** is the date of consistent moth flight. (CM=Codling Moth, PTB=Peach Twig Borer)

Insect Activity

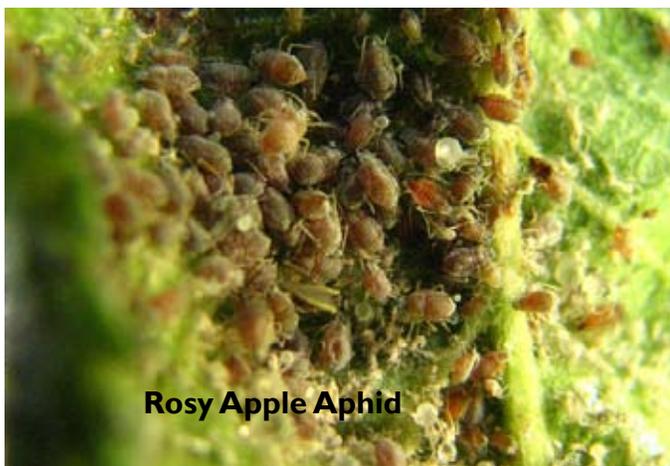
APPLES AND PEARS

Codling Moth (CM):

Adult moths are still flying, but trap catches continue to decline. Moth flight for the first generation ends at approximately 920 degree days after biofix (late June-early July), with flight for the second generation starting soon thereafter.

[Click here](#) for the USU codling moth fact sheet

Apple Aphids



Green Apple Aphid (GAA):

Green apple aphid is the most common aphid on apples and their populations are increasing now, as the apple leaves are expanding and still succulent. They feed throughout summer and overwinter as eggs. They generally do not cause damage to established trees. Younger trees or new plantings may need to be protected.

Rosy Apple Aphid (RAA):

Rosy apple aphids are easily identified by their rosy color. Feeding by rosy apple aphids can cause leaves to curl inward, and if feeding occurs in fruit clusters, the aphids' toxic

saliva distorts fruit growth. We generally do not recommend control recommendations for RAA in the summer, because they move from apple trees to weed hosts in early July.

Woolly Apple Aphid (WAA):

Woolly apple aphid colonies look like a mass of white cotton. They feed on roots, stems, bark, and twigs, causing galls. Severe root infestations can kill young trees. Scout the inner canopy and cracks and crevices of your trees now and apply treatments as necessary to prevent colony build-up.

[Click here](#) for the USU apple aphid fact sheet

San Jose Scale (SJS):

Continue to monitor for scale by looking on new twig bark for the purplish-red halos. If you see them, wrap double-sided sticky tape (or duct tape) around the twig/limb and watch for tiny crawlers that will get trapped on the tape. The crawler stage is most vulnerable to treatment.

Estimated Treatment Timings for SJS:

Wasatch Front: between June 13 and June 19

Cache Valley: between June 22 and June 28

White Apple Leafhopper:



Leafhopper nymphs were observed several weeks ago, and adults are active now. They are a minor pest of apples and rarely cause economic damage. They cause stippling of leaves but this does not harm the tree. Treatment threshold for leafhopper ranges (according to various sources) from 3 insects per terminal to 6 insects per terminal. Treatment is usually warranted when the pest is a nuisance at apple-picking time.

PEACHES AND NECTARINES

Peach Twig Borer (PTB):

The first peach twig borer sprays should be on this week. I've had a few questions about spraying followed by rain. There are no hard and fast guidelines if this situation occurs. It depends on the material, the pest, and the length of rain. If your spray was applied and given at least 2-4 hours to thoroughly dry, it should be fine through a rainstorm until the next spray. Products that have a short protection period (3-4 days) should probably be re-applied after the rain event, while others such as carbaryl will last through the rain. Be sure to read the label carefully about any other instructions.

Continue to monitor for shoot strikes and prune these out.

[Click here](#) for the USU peach twig borer fact sheet.

CHERRIES

Western Cherry Fruit Fly (WCFF):

Fruit fly adults have been trapped all areas of northern Utah. If the cherries on your trees have developed a salmon-blush color (which most sweets have and tarts are developing) you should begin applications to protect your fruit through the summer with materials that target the adults. Be sure to note the pre-harvest interval (PHI) of your material. (This is the time period you must wait after a spray to harvest your fruit.)

[Click here](#) for the USU western cherry fruit fly fact sheet.

Disease Activity

APPLES AND PEARS

Fire Blight:



New fire blight infections of new shoot growth continue to occur. Monitor your orchard/trees for fire blight infections and prune them out 12-18" below the canker. Disinfect your pruners with a mix of bleach and water in between cuts to prevent spreading the bacteria.

CHERRIES

Cherry Powdery Mildew:



Powdery mildew on both sweet and tart cherries was observed in Davis and Utah counties. Powdery mildew causes a white fuzzy growth on leaves and fruits. In tart cherries, powdery mildew infections that enter the pedicels (stems) will make it difficult to shake the cherries loose. If you see some powdery mildew, treatments will not kill the existing infection, but will prevent spread to other sites.

Current Spray Timings - Commercial Growers

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

Codling moth First Generation:

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. **It is crucial to have fruit protected during the interval 340-640 DD after biofix.

County	City	Spray Date to Target First Larvae Hatch	**Spray Dates to Target Max. Larvae Hatch	End of Egg Hatch
Box Elder	Perry, Willard, Brigham	May 14	May 21 - June 12	June 26
Cache	North Logan	May 24	June 2 - July 25	July 10
	Richmond	May 29	June 5 - July 27	July 12
	River Heights	May 18	May 31 - June 22	July 8
Carbon	Price	May 16	May 28 - June 23	July 8
Davis	Kaysville	May 17	May 26 - June 13	June 27
Salt Lake	Salt Lake City (est.)	May 16	May 24 - June 11	June 24
	West Valley City	May 18	May 22 - June 11	June 24
Tooele	Erda	May 18	May 23 - June 12	June 25
	Grantsville	May 16	May 21 - June 10	June 23
	Tooele	May 16	May 21 - June 10	June 23
Utah	Alpine	May 18	May 28 - June 17	July 1
	Genola	May 14	May 24 - June 13	June 27
	Lincoln Point	May 17	May 27 - June 15	June 28
	Orem	May 13	May 19 - June 10	June 23
	Payson	May 16	May 25 - June 16	June 30
	Provo	May 20	May 30 - June 16	June 29
	Santaquin	May 16	May 26 - June 16	June 30
	West Mountain	May 17	May 28 - June 16	June 29
Weber	Pleasant View	May 14	May 18 - June 9	June 23

Materials for codling moth control:

larvae: Assail, Asana, Calypso, Carbaryl, Clutch, Diazanone, Guthion, Codling Moth Granulosis Virus, Imidan, Intrepid, Warrior, Sevin, Malathion

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

Rosy and Green Apple Aphids:

Provado, Thiodan, (can combine with first PTB cover spray)

San Jose Scale:

acetamiprid (Assail), carbaryl (Sevin), diazinon, esfenvalerate (Asana), imidacloprid (Provado, Merit), pyriproxyfen (Esteem), hort. oil

Western Cherry Fruit Fly:

imidacloprid (Merit, Provado-every 14 days), phosmet (Imidan-every 14 days, but not on sweet cherry), chlorpyrifos (Lorsban-every 14 days but not on sweet cherry), diazinon (every 14 days), spinosad (GF-120, Success), permethrin

White Apple Leafhopper:

carbaryl, cyfluthrin (Baythroid), indosulfon (Thionex), novaluron (Rimon), permethrin

Current Spray Timings - Commercial Growers, continued

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

Peach Twig Borer, First Generation:

The projected timing dates of the spray periods shown below will be updated each week. The spray date represents 300 DD after biofix, when 5% of eggs have hatched, and 400 DD after biofix, when 28% of eggs have hatched. For materials that last fewer than 10 days, apply a second spray.

County	City	Beginning Spray Date. High Pops (300 DD after Biofix)	Beginning Spray Date, Moderate Pops (400 DD after Biofix)
Box Elder	Perry, Willard, Brigham	June 1	June 6
Cache	North Logan	June 13	June 20
	Richmond	June 14	June 21
	River Heights	June 9	June 17
Davis	Kaysville	June 4	June 9
Salt Lake	Salt Lake City	June 2	June 7
	West Valley City	June 2	June 7
Utah	Alpine	June 6	June 12
	Genola	June 4	June 10
	Lincoln Point	June 5	June 11
	Orem	June 4	June 9
	Payson	June 1	June 7
	Provo	June 4	June 10
	Santaquin	June 3	June 9
	West Mountain	June 4	June 10
Weber	Pleasant View	May 29	June 4

Materials for peach twig borer control:

-same as codling moth materials

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

Cherry Powdery Mildew:

azoxystrobin (Amistar), boscalid (Pristine), fenarimol (Rubigan), myclobutanil (Laredo), propiconazole (Orbit), quinoxyfen (Quintec), triadimefon (Bayleton), triflumizole (Procure)

Current Spray Timings - Homeowners

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

Codling moth First Generation:

The projected timing dates of the spray periods shown below will be updated each week. The “beginning spray date” is at 220 DD after biofix, when larvae just begin to hatch, and the “ending spray date” is at 920 DD after biofix, when most of the larvae have hatched.

*The third column represents the time period when most eggs are hatching, which is a crucial period for protecting your fruit. Use it as a guideline to time your applications so that you do not miss a spray or are late with a spray during that time.

Read your pesticide label for residual period (length of time it is effective) and re-apply at the given interval from beginning date to ending date, so that fruit is protected during this entire period.

County	City	Beginning Spray Date	*Critical Period to Keep Fruit Protected	Ending Spray Date
Box Elder	Perry, Willard, Brigham	May 14	May 21 - June 12	June 26
Cache	North Logan	May 24	June 2 - July 25	July 10
	Richmond	May 29	June 5 - July 27	July 12
	River Heights	May 18	May 31 - June 22	July 8
Carbon	Price	May 16	May 28 - June 23	July 8
Davis	Kaysville	May 17	May 26 - June 13	June 27
Salt Lake	Salt Lake City (estimate)	May 16	May 24 - June 11	June 24
	West Valley City	May 18	May 22 - June 11	June 24
Tooele	Erda	May 18	May 23 - June 12	June 25
	Grantsville	May 16	May 21 - June 10	June 23
	Tooele	May 16	May 21 - June 10	June 23
Utah	Alpine	May 18	May 28 - June 17	July 1
	Genola	May 14	May 24 - June 13	June 27
	Lincoln Point	May 17	May 27 - June 15	June 28
	Orem	May 13	May 19 - June 10	June 23
	Payson	May 16	May 25 - June 16	June 30
	Provo	May 20	May 30 - June 16	June 29
	Santaquin	May 16	May 26 - June 16	June 30
	West Mountain	May 17	May 28 - June 16	June 29
Weber	Pleasant View	May 14	May 18 - June 9	June 23

Materials for codling moth control:

Chemical	Example Names	Protection Period
carbaryl	Sevin, Bayer Advanced Complete Insect Killer, etc.	7-14 days (read label)
malathion	Bonide Malathion, Hi-Yield 55% Spray,	7-14 days (read label)
<i>Bacillus thuringiensis</i>	Dipel	3-6 days (read label)
spinosad	Success, Entrust	3-6 days (read label)
CM granulosis virus	Virusoft	10-14 days
kaolin clay	Surround	5-7 days

Cherry Powdery Mildew:

Hi-Yield Lime Sulfur Spray, Bonide Sulfur Dust

Current Spray Timings - Homeowners, continued

Peach Twig Borer, First Generation:

The projected timing dates of the spray periods shown below will be updated each week. The spray date represents 300-400 DD after biofix, when 5-28% of eggs have hatched. For materials that last fewer than 10 days, apply a second spray.

County	City	Beginning Spray Date Range
Box Elder	Perry, Willard, Brigham	June 1 - 6
Cache	North Logan	June 13 - 20
	Richmond	June 14 - 21
	River Heights	June 9 - 17
Davis	Kaysville	June 4 - 9
Salt Lake	Salt Lake City (est.)	June 2 - 7
	West Valley City	June 2 - 7
Utah	Alpine	June 6 - 12
	Genola	June 4 - 10
	Lincoln Point	June 5 - 11
	Orem	June 4 - 9
	Payson	June 1 - 7
	Provo	June 4 - 10
	Santaquin	June 3 - 9
	West Mountain	June 4 - 10
Weber	Pleasant View	May 29 - June 4

Materials for peach twig borer control are same as for codling moth

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

Green and Rosy Apple Aphid:

malathion (Fertil-Lome Mal-a-cide, etc.), pyrethrin (Hi-Yield Rose and Flower Spray, etc.) (can combine with first PTB cover spray)

San Jose Scale:

Bonide Lime Sulfur Concentrate, sevin, esfenvalerate (Ortho), imidacloprid (Merit), horticultural oil, neem oil

Western Cherry Fruit Fly:

spinosad (GF-120, Natural Guard Spinosad, every 7 days), Sevin (every 7 days), permethrins (every 7-14 days)

White Apple Leafhopper:

products that contain carbaryl or permethrin

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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