

## Insect Activity

### CONIFERS

#### Western Spruce budworm:



The larva of this moth can be a destructive defoliator on a variety of conifers in our western forests. Occasionally it is found in urban settings on species of spruce, fir, pine and on Douglas-fir. It was found this week on Norway spruce in Salt Lake county.

The larvae at this time of year were laid as eggs last August. Upon hatching, they immediately sought sheltered sites to spend the winter. They emerge in spring to feed, and first mine into needles or buds. Spot them by looking for their path of silken webbing and excrement. They may entirely consume all new foliage before moving on to older needles.

In the urban setting, the budworm population is held in check by a variety of parasites, predators, and amount of food available. If you know you have this pest

(look for feeding or shake branches over a cloth to look for larvae), then the time to control is now, up until bud break.

Insecticides for use in Utah include carbaryl (Sevin, Bayer Advanced Complete) and *Bacillus thuringiensis* (Bt-Foray, Safer). Bt is a safe alternative to chemical insecticides and has been used successfully on a variety of caterpillar defoliators.

#### Aphids

A species of pine aphid was seen in large numbers on Austrian pines in Utah county. As mentioned the earlier advisory, aphid infestations are usually kept in check by natural enemies.

Control may be needed, however, if aphid populations are so high that significant host plant damage is anticipated. Determining the need for control requires inspecting your landscape plants. Do this by beating a branch over a cloth tray in several locations. If you see over 100 aphids each time, and your pine is showing damage, consider treatment.

Start by directing a forceful water spray to the branches to dislodge aphids. This is a short-term solution, but works if you keep up with it. Other options:

insecticidal soap, summer oil, Malathion, Sevin, Merit

#### Cooley Spruce Gall Adelgid

Have you seen structures like the one shown on the next page on your Colorado blue spruce? If so, it is not a cone, but a gall formed by an insect called cooley spruce gall adelgid. The pictures on the following page were taken this week in Weber County.

## What's In Bloom

### Salt Lake, Weber, and Utah Counties:

Amelanchier: full bloom  
Bradford pear: post bloom  
Bridalwreath spirea: full bloom  
Burkwood viburnum: full bloom  
Callery pear: full bloom  
Crabapple: first bloom - full bloom  
Forsythia: post bloom  
Japanese kerria: full bloom  
Kwanzan cherry: post bloom  
Lilac: first bloom  
Mahonia: full bloom  
Purple-leaf plum: full bloom  
Redbud: full bloom



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Last years' galls formed by spruce gall adelgid



Cooley spruce gall adelgid overwintering females



Exposed cooley spruce gall adelgid eggs

Spruce gall adelgid has a somewhat complex life cycle in that it alternates between blue spruce and Douglas-fir. They overwinter as immature females (a fundatrix) at the base of needles and new buds, and in spring, develop a white, cottony coating. They lay their eggs underneath, keeping them protected.

Egg hatch and bud break coincide: the newly hatched eggs crawl to the base of the needles on the newly expanding foliage. As the young insects feed at the needle bases, they release a substance that causes swelling. Eventually, the gall forms that protects the developing insects for the next several months.

A few galls on your Colorado blue spruce is not harmful. They can be easily pruned out. Prune them while they are still green (before mid-July) and destroy the galls. Pruning old galls is not helpful since the insects have already left them.

Heavily infested trees can become less vigorous and look unsightly, and may need control. One method is to spray a dormant oil spray in late fall. A spring-time spray is also effective, but must be timed before the new growth emerges. Keep in mind that horticultural oil sprays on blue spruce can cause them to turn green.

If you know you have this pest in high numbers (examine twigs for the distinctive cotton), a spray now of a systemic insecticide such as Merit can control the nymphs as they begin migrating from the hatching site to the buds.

## DECIDUOUS TREES

### Leaf-curling Aphids:



Aphids on chokecherry

This aphid (possibly leafcurl plum aphid) was seen on chokecherry in Utah county. Aphids feed on plants by sucking sap from the leaves, twigs or stems, and weakening the plant. Aphid feeding can also cause leaf curling. Often colonies will hide within the curled leaf to feed. This is also seen on snowball viburnum, honeysuckle, plum, and ash.

You'll also notice the sweet, sticky, shiny liquid on the leaves--this is called honeydew, the excrement of the aphids. Excessive honeydew dropping onto cars can be a nuisance. It also promotes the growth of sooty mold fungus on the leaves and bark.

See control measures for pine aphids, previous page. A systemic insecticide (Merit) works best for aphids such as these that hide within the leaves.

### Western Tent Caterpillar

Tent caterpillars were spotted in Weber county on chokecherry. This caterpillar spins tents at the ends of branches on a variety of host plants. They hatch about when the buds begin to expand, and begin feeding and spinning webbing. As they mature and eat up the food within the nest, they leave



Tent full of hungry western tent caterpillars

their protected site in the evening to feed on the foliage. Healthy trees can easily withstand the feeding damage they cause. The larvae mature in 5-6 weeks and leave the tree to find a place to pupate.

Tent caterpillars are more a nuisance, especially when migrating to pupate. They can be destroyed by opening up the next and exposing them to predators. A blowtorch also makes quick work of these insects.

### Cankerworm

Cankerworms are quite common defoliators of various tree species including apple, ash, beech, elm, hickory, linden, maples and oaks. I saw this insect on purple-leaf plum in Weber county. There is a spring cankerworm and fall cankerworm, and both insects emerge in early spring to feed. They are similar in appearance and feed on the same hosts. They move like an inchworm and travel from branch to branch on silken threads. They feed irregular holes out of leaves, but do not cause serious damage. You may notice them in late June as they swing down from the trees to burrow into the soil. There they pupate and adults emerge as adults either the following late fall (fall cankerworm) or late winter (spring cankerworm). Bt is an excellent option for control if deemed necessary.

## Disease Activity

### Cytospora Canker on Poplar



Cytospora canker on hybrid poplar

A canker was observed on hybrid poplars in Utah county, most likely caused by a fungus called *Valsa sordida*. This fungus attacks cottonwood, balsam poplar, and hybrid poplars. It can be a real problem on Lombardy poplars. Look for black, sunken areas on stems, branches, and twigs.

These cankers first appear as sunken, discolored bark with raised edges. After 2 to 3 years, bark that has been killed falls off the stem in large pieces. Wood in the canker appears light to reddish-brown and water-soaked. Eventually, these cankers can kill the tree.

The presence of cytospora canker is an indication that the tree is under stress. The fungus typically will not attack healthy, vigorous, undamaged trees.

Once the tree has the canker, there are no chemical, curative controls. The best measure is to protect your remaining trees:

- Keeping them well-watered.
- Do not damage the bark.
- Plant resistant varieties, and chose the right tree for the right site.
- Prune out all dead, dying, and diseased branches.
- Protect the bark of young trees from winter injury with a white tree band (remove in spring).

**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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