



What's In Bloom

(Salt Lake City area)

A few warm days over the weekend slowly pushed plant movement along. We are still behind "normal" by 1-2 weeks.

Aspen: full bloom

Forsythia: full bloom
Japanese flowering cherry: bloom
Kwanzan cherry: begin bloom
Red maple: end bloom
Serviceberry: begin bloom
Star magnolia: begin bloom
Willow: end bloom
Witch hazel: end bloom

Insect/Disease Information

CONIFERS

Bark Beetles

Not to be confused with borers whose larvae will tunnel into wood, larvae of bark beetles feed only in the succulent cambium tissue, just under the bark. We often think of bark beetles in association with coniferous forest trees and not in our landscapes, but there are a few species that will attack urban planted trees. Ips beetles, also known as engraver beetles, attack stressed or newly transplanted pine and spruce trees.



Ips hunteri attacks Colorado blue spruce, and *Ips pini* attacks ponderosa and lodgepole pine. Damage is usually seen from the top down. Adults overwinter in downed woody debris or within the tree, and emerge in spring (when star magnolia ends bloom). Males will immediately bore under the bark to build a "nuptial gallery" and attract females with a pheromone "scent." After mating, females enter the nuptial gallery and excavate egg galleries along its length, forming a "Y" or an

"H" pattern. When the eggs hatch, they form smaller tunnels laterally off the main galleries. Two to four generations can occur in one year.

Trees at risk of attack are those that are newly transplanted, or mature trees that have suffered a stress such as root loss, drought, disease, or wounding. Also, trees in areas where ips is established are also vulnerable to attack.

Freshly cut conifers can also be attractive to ips, so do not leave debris or fresh firewood near susceptible trees.

Treatment: (Only apply to trees at risk. Healthy trees are not as susceptible.) Sprays must thoroughly cover the trunk, and on mature trees, should be applied by a licensed applicator. Beetles will be emerging soon, and one spray should be applied soon after emergence, and a second in summer. Use permethrin (Astro, Times Up), imidacloprid (Bayer 12 month tree and shrub), or carbaryl (Sevin).

European Pine Shoot Moth

The European pine shoot moth attacks mostly young, 2-needled pines, and mugo pine is the most common host. Larvae bore into shoots and buds causing bushy, stunted growth. It will not kill the host.

Look now for wilted or dead bud tips (as shown on image on next page). Break them off and look for the overwintering larvae within. They are feeding now, and moving to new shoot tips. They

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Insect/Disease Activity continued from previous page



will pupate within the tips in late spring. Now is a good time to target these migrating larvae.

Treatment: Materials include but are not limited to spinosad (Conserve), pyrethrin (Pyganic), imidacloprid (Criterion, Discus, Merit, Bayer Advanced), carbaryl (Sevin, Bayer), malathion, phosmet (Imidan), cyfluthrin (Tempo), and bifenthrin (Talstar, Ortho Max).

Juniper Flowers

Do your arborvitae or junipers look like they have a tip blight? Not to worry--these are just the flowers in bloom now. Junipers (*Juniperus*) are dioecious, meaning that male and female flowers occur on separate plants. Arborvitae (*Thuja*) are monoecious, and both male and female flowers occur on the same plant. Some years flowering is heavier than other years, and hardly goes noticed.



Cooley spruce gall adelgid

If you had this pest last year (see galls at upper right), the springtime treatment for overwintering females is before they have formed their waxy covering.

Treatment: acetamiprid, bifenthrin, carbaryl, deltamethrin, horticultural oil (will cause blue spruce to lose its bloom; color will return within 2 years), imidacloprid, insecticidal soap



DECIDUOUS TREES

Western tent caterpillar



This moth lays eggs on twigs and stems of a variety of hardwoods in a glue-like mass (shown above) where they will hatch in early spring, as leaves begin expanding. The group of larvae stay together in a large silken tent, and feed on foliage at night. Outbreaks are localized, and when caught early, can be easily controlled. (A different species of tent caterpillar attacks cottonwoods and can be quite voracious.)

Treatment: A large amount of materials are registered for use on tent caterpillars including spinosad, Bt (*Bacillus thuringiensis*, on young larvae), carbaryl, malathion, insecticidal soap, pyrethrin, permethrin, indoxacarb (Provaunt), etc.

Cankerworm

Although leaves have begun to expand on the box-elder trees, cankerworm eggs have not started hatching yet. Other hosts are ash, linden, cherry, crabapple, elm, red and white oaks, and other maples.

Degree Days and Pest Monitoring Timeline

Upcoming Monitoring/Insect Activity

Pest	Degree Day Timing (base 50)	Indicator Plant
White pine weevil	Adults active at 7-58 DD	Silver maple first bloom
Spruce spider mite	Egg hatch at 7-121 DD	Silver and red maple bloom
Smaller European elm bark beetle	Adults emerge at 7-120 DD	Silver and red maple bloom
European pine shoot moth	Larvae move to new shoots at 50-220 DD	Red maple first bloom
Honeylocust plant bug	Nymphs emerge starting at 58 DD	Red maple bloom, Japanese quince begin bloom
Western tent caterpillar	Eggs begin hatching at 100 DD	Forsythia full bloom
Engraver beetles	Adults begin emerging at 112 DD	Star magnolia end bloom

Current Degree Days (base 50)

March 1 - Wednesday, April 16

County	Location	GDD (50)
Box Elder	Perry	51
Cache	North Logan	33
	River Heights	35
	Smithfield	35
Carbon	Price	53
Davis	Kaysville	70
Grand	Castle Valley	184
Salt Lake	SLC	72
	West Valley City	72
Tooele	Erda	72
	Grantsville	71
	Tooele	71

County	Location	GDD (50)
Utah	Alpine	56
	Genola	81
	Lincoln Point	---
	Orem	69
	Payson	86
	Provo	90
	Santaquin	67
	West Mountain	72
Weber	Pleasant View	62

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