



What's In Bloom

(Salt Lake City area)

Beautybush: end bloom
Purple robe locust: end bloom
Bridalwreath spirea: end bloom
Climbing roses: begin bloom
Cotoneaster: end bloom

Cranberrybush viburnum: bloom
Deutzia: bloom
Horsechestnut: end bloom
Kousa dogwood: end bloom
Privet: bloom
Russian olive: bloom
Smokebush: begin bloom
Van Houtte spirea: end bloom

Insect/Disease Information

CONIFERS

Pine needle scale



Pine needle scale (not to be confused with black pineleaf scale) is an armored scale of Scotch, Austrian, and mugo pines. The scale body forms a white waxy covering, making it easy to identify. We usually do not see heavy populations in Utah except in localized areas.

Eggs are now hatching into crawlers (young scale nymphs) in much of northern Utah. Egg hatch is usually drawn out over a period of 3-4 weeks. Crawlers develop a waxy covering upon settling within 3 weeks, which leaves a large window for targeting the crawlers.

Keep in mind that a second generation will hatch in late July (when butterfly bush is in full bloom) that may also need treatment.

Two sprays of horticultural oil (1-2%), one week apart, is very effective if targeted at the crawlers. Be sure to examine the needles on your problem trees for active crawlers before treating. Otherwise, you are making a wasted spray.

Another (more expensive) option is a soil injection of the systemic, Safari (dinotefuran). This material is very effective against both armored and soft scales.

Treatment: horticultural oil (1-2%), insecticidal soap; other options are more harmful to beneficial insects: carbaryl, malathion, cyfluthrin (Tempo, Bayer Advanced); Dinotefuran (Safari) can also be applied as a soil drench in spring.

European Pine Sawfly



Larvae of the European pine sawfly have just about finished feeding for the season, leaving behind bare shoots of mugo, Scotch, Austrian, and ponderosa pines. This insect overwin-

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ters as eggs laid in slits along the length of needles. The larvae pupate, and adults emerge in the fall to mate and lay eggs.

Sawflies are not caterpillars. They are related to ants, bees, and wasps. The larvae stay huddled together in tight groups during feeding, often 2 per needle. They primarily feed on the previous years' growth, and once the current year's growth emerges, the damage is mostly hidden.

DECIDUOUS TREES

Oystershell Scale



Oystershell scale is an armored scale with two generations of crawlers. The first generation of crawlers will be emerging in the next week in Wasatch Front areas, and slightly afterward in cooler areas. Dozens of deciduous plants can be attacked by oystershell scale. In Utah, common hosts are maple, ash, lilac, hybrid poplars, aspen, cottonwood, and willow. There is a second generation later in the season.

The best time to treat for this scale is when the crawlers are active. Options include summer oil, neem oil (Concern), diazinon (Ferti-Lome), permethrin (Bonide), or malathion (Bonide, Maxide).

Using Safari (dinotefuran) as a soil injection is another option, if applied now. Imidacloprid is not effective on armored scales. Safari, Distance (pyrifoxifen), Talus (buprofezin), or a pyrethroid can be used as a foliar treatment. Distance and Talus are growth regulators and work best when used early. They also have sublethal effects in that surviving females lay fewer eggs the following year. At least two applications will be necessary due to the long egg-hatch period of many armored scales.

Elm Insects

Siberian elms (not our favorite tree, but growing everywhere) seeded very heavily this year in some locations. That, in combination with a large population of elm flea weevils, caused

many elms to appear as if they are dying. Leaves emerged and the heavy seed crop and weevil feeding caused the new leaves to shrivel and die. A new crop of leaves will be emerging soon. But get ready to pull up some seedlings!

The elm flea weevil is a tiny insect that often goes unobserved. It feeds tiny holes out of the undersides of leaves. It then lays eggs along the veins of the leaves and the larvae mine the inside of the leaves for several weeks.



Elm leafminer, a sawfly, is also active now. The larvae are feeding within the leaves, between the upper and lower layers. If several larvae are mining one leaf, their mines will coalesce, leaving the entire leaf brown and hollowed-out. The full-grown larvae emerge from the leaf and drop to the ground where they pupate the following spring.



Usually the damage these insects cause, which is mostly aesthetic, does not warrant control.

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Bronze Birch Borer



Bronze birch borer adults have begun emerging in most areas of the Wasatch Front. The larvae feed on wood under the bark and after pupating, emerge from birches, leaving a distinctive, D-shaped exit hole (shown above). They will attack European and Asian species of birch.

They primarily attack trees under stress (drought, nutrient, wounding, etc.) so keeping birch trees that are in full sun as healthy as possible can help the tree resist attacks by the beetle.

Bronze birch borer is best prevented through bark sprays of insecticides to kill the adults as they lay eggs. But a soil injection of imidacloprid can kill the larvae as they feed. Treat birch trees with an insecticide containing permethrin as an active ingredient now and repeated three weeks later.

Treatment: Imidacloprid can be used as a soil drench, but ideally should be applied in early spring as the tree needs time for uptake. Studies have shown, however, that soil applications applied in late spring will also kill a certain amount of larvae within the tree. It will not prevent egg-hatch, however. Bidrin can also be injected using the tree itself, but you are introducing new wounds with this method. Trunk sprays (apply now) include permethrin or carbaryl.

Fire Blight

Fire blight "strikes" have been found on Bradford pear and hawthorns. The bacteria that causes fire blight attacks a variety of rosaceous species. As you notice the damage, prune out the infections up to 18" below the damaged tissue.

Fire blight is usually not as severe a problem in ornamental trees as it is in production apples and pears, however it can cause many small cankers throughout an infected tree. If not pruned out, each small canker harbors the bacteria for future infections. Sometimes entire limbs can be killed. Look for wilted leaves at blossom spurs. Do not prune in wet weather and disinfect pruners between cuts with Lysol, 10% bleach, or rubbing alcohol.



Powdery Mildew



Powdery mildew is more apparent than ever this year on roses, maples, ornamental pears, honeysuckle, lilac, crabapple, and other plants. The list of susceptible plants is very long, but often the species of fungus causing powdery mildew is host specific, and may not be the same species on an adjacent plant with powdery mildew.

Powdery mildew prevents leaves from photosynthesizing to their fullest ability, resulting in stunted or twisted leaf growth, leaf chlorosis or necrosis, and leaf drop. Some plants show very little effect to powdery mildew. In late summer, the fungus produces black fruiting bodies called chasmothecia, which allows the fungus to survive the winter on the fallen leaves. Free water (rain) does not spread powdery mildew. Instead, it is high humidity, which may occur after rainfalls or overhead irrigation. Crowded or shaded plantings are also susceptible.

Treatment: Prune out or pick off localized infections, avoid overhead irrigation, improve air circulation between and within plants and rake fallen leaves in the fall. Horticultural oil (0.5%) has been used for control of powdery mildew. Fungicides, such as sulfur, potassium bicarbonate (Kaligreen, Remedy), chlorothalonil, or propiconazole (Fertilome) are used to prevent future infections.

Pest Monitoring Timeline

Upcoming Monitoring/Insect Activity (Salt Lake Area)

Pest	Host Plants	Insect Activity	Indicator Plant
Elm leaf beetle	elms, zelkova	Larvae hatching	weigela full bloom
Oystershell scale	many deciduous trees	1st generation crawlers are active	beautybush full bloom
Lilac root weevil	many deciduous shrubs	Adult feeding ("notching") leaves	---
Bronze birch borer	paper birch	Adults are emerging and laying eggs now	kousa dogwood full bloom
Cottonwood leaf beetle	<i>Populus</i> sp.	Larvae starting to hatch	kousa dogwood full bloom
Euonymus scale	<i>Euonymus</i> sp.	Crawlers becoming active	black locust full bloom

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Editor: Marion Murray, marion.murray@usu.edu

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