



## What's In Bloom

(Salt Lake City area)

### **Beautybush: first bloom**

Black cherry: end bloom  
Bridalwreath spirea: bloom  
Doublefile viburnum: full bloom  
Crabapple: end bloom

Hawthorn: bloom  
Honeysuckle: begin bloom  
Horsechestnut: bloom  
Japanese kerria: end bloom  
Oregon grape: bloom  
Pagoda dogwood: begin bloom  
Purple robe locust: begin bloom  
Siberian peashrub: end bloom

## Insect/Disease Information

### DECIDUOUS TREES

#### Elm Insects: Flea Weevil and Leafminer

Hosts: elm species



elm flea weevil (top);  
elm leafminer (bottom)



Siberian elm is not our favorite tree, but still, it is good to know about two of the (many) pests that are active now.

The elm flea weevil is a tiny insect that often goes unnoticed. It chews tiny holes from the undersides of leaves. Females lay eggs along the leaf veins, and the larvae mine the inside of the leaves for several weeks.

Elm leafminer is a sawfly whose feeding will be noticed soon. The larvae feed 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 remain until the following spring, when they then pupate to an adult.

#### **Treatment:**

Insecticides are rarely needed, but if applied, should target the adults of both species.

*Residential:* Hi-Yield permethrin products, Spectracide Triazicide (lambda-cyhalothrin)

*Commercial:* Acelepryn (chlorantraniliprole), permethrin (Astro, Covert, Waylay), Onyx (bifenthrin)

#### Honeylocust and Sycamore Plant Bug

Hosts: honeylocust, sycamore

- **spray if damage is severe (images on next page)**

Overwintering plant bugs on honeylocust and sycamore are building in populations now that these trees have leafed out. You can look for them by shaking several branches over paper or a cloth tray.

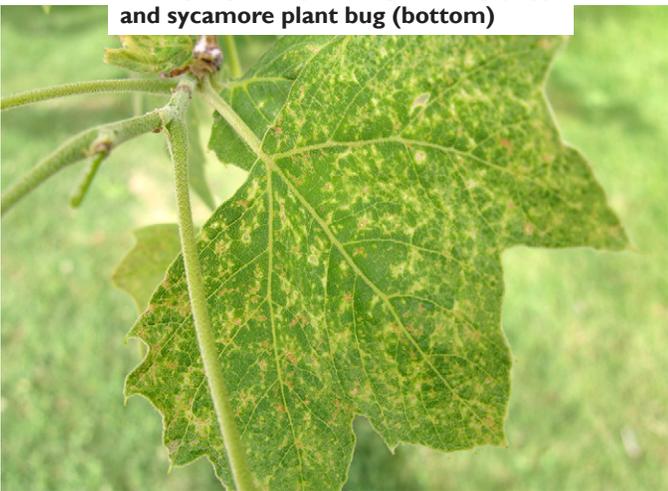
Plant bugs overwinter as eggs that hatch into nymphs during leaf expansion. The honeylocust plant bug has just one generation per year, so the nymphs and adults are only around for about 6 to 8 weeks. The sycamore plant bug has many generations per season, and can thus cause damage throughout the season.

Adults and nymph plant bugs feed with piercing-sucking mouthparts, where they they inject a toxin into the leaves that kills the tissue, causing chlorotic (yellow) and necrotic

## Insect/Disease Activity, continued from previous page



**damage by honeylocust plant bug (top)  
and sycamore plant bug (bottom)**



(brown) stippling, and ragged leaves. Leaves also become distorted, discolored, and dwarfed. The nymphs cause the primary damage; once you see adults, it is too late for treatment.



**only  
adults  
have  
wings**

If nymphs and feeding damage is found, a strong stream of water on the plant leaves will knock them off, and the flightless nymphs will not be able to crawl back to the leaves. Insecticidal soap and horticultural oil are also effective, if an application is warranted.

### Maple, Oak, and Sycamore Anthracnose

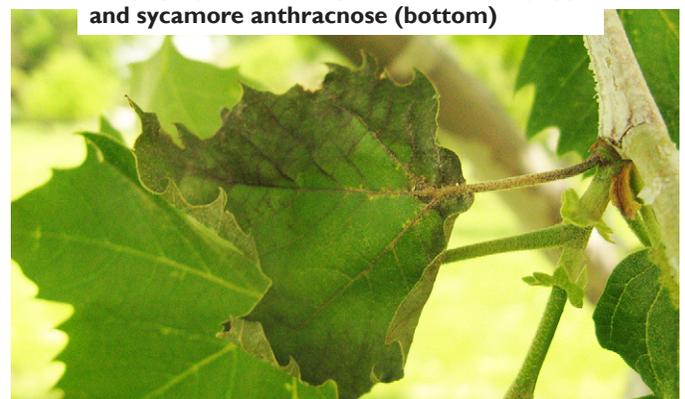
**Hosts:** maple, oak species, sycamore (not London plant tree)

- **plan to treat foliage next spring, or for specimen sycamore trees, trunk injection in spring or fall**

Fungal diseases thrive in wet weather, including anthracnose diseases. Anthracnose causes blotch and blight symptoms on leaf shoots, which appear as necrotic (brown) lesions that



**early symptoms of maple anthracnose (top)  
and sycamore anthracnose (bottom)**



eventually cover the entire leaf. The infected leaves will drop, and additional cool rains will result in new infections. As temperatures increase, infections will stop for the season and the tree will produce a new flush of foliage.

Maple and oak anthracnose overwinters in fallen leaves, so these diseases are the most severe in natural or wooded areas where the fallen leaves collect from year to year.

Sycamore anthracnose is more insidious because the disease is “systemic” in that it invades the wood of twigs, causing small cankers. The fungus overwinters as resting spores at these cankers, and as a result, repeated infections can happen very early in spring.

#### **Treatment:**

Maple and oak anthracnose are treated by preventive fungicides applied at budbreak in spring. Again, as temperatures heat up, no more new infections will occur; but with continued cool wet weather, a foliar application could help prevent further spread. In general, two to three fungicide applications should be sprayed in spring starting when buds swell, spaced 14 days apart.

## Insect/Disease Activity continued from previous page

For sycamore anthracnose, prune out dead or diseased twigs. For specimen trees, fungicide trunk injections (Arborfos, Arbotect) in spring or fall, for 2 years in a row, have shown to provide long-term protection.

### Fire Blight

**Hosts:** crabapple, hawthorn, quince, ornamental pear

- **prune out infected shoots**



in the next few weeks, look for fire blight infections and prune them out immediately

Monitor for fire blight “strikes” by examining old blossom spurs for wilted or brown tissue. The best treatment is to prune out those young infections as early as possible. Remove twice the length of the symptomatic tissue. Do not prune in wet weather, and be sure to disinfect pruners between cuts with Lysol spray or disinfecting wipes.

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. If they are not pruned out, each small canker harbors the bacteria for future infections. Sometimes entire limbs, or even entire trees, can be killed.

### Bacterial Blight

**Hosts:** lilac, viburnum, serviceberry, dogwood, maple, and many others

- **prune out affected tissue**

Cool, wet rains contribute to the spread of a disease called bacterial blight, caused by *Pseudomonas syringae*. It causes wilted shoots, blackened foliage, oozing cankers, and bud death of a variety of plants including lilac, dogwood, cherry, horsechestnut, and serviceberry.

*Pseudomonas syringae* bacteria live as epiphytes (non-pathogenic) on almost all plant surfaces. The bacteria need a wound to enter the plant and cause infection, such as through small frost cracks. Rain splashes the bacteria further. The bacteria are able to enhance plant damage by freezing due to



bacterial blight on lilac (top) or on dogwood (bottom) causes blackened wilted shoots, and blackened blotches on foliage



William Jacobi, Colorado State University, Bugwood.org

their ice nucleating proteins which act as a catalyst, causing water to freeze at higher temperatures.

#### Treatment:

Infections stop completely when the weather turns hot and dry. Damaged plant tissue should be pruned out in dry weather. Copper applications during bud swell in spring and in fall are the only options for this disease.

### Powdery Mildew

**Hosts:** many deciduous ornamentals

- **treat foliage as necessary (continued on next page)**



## Insect/Disease Activity continued from previous page

As the temperatures warm, powdery mildew will start to show up on many ornamental plants. Be sure to scout early and often to catch this disease before it gets too bad.

### **Treatment:**

*Residential:* Avoid overhead irrigation, improve air circulation between plants, and rake fallen leaves in the fall. Fungicides include horticultural oil (0.5%), potassium bicarbonate (Bicarb), Bayer Advanced Natria, neem oil, Spectracide Immunox, or chlorothalonil. The fungicide must be applied as a preventive to stop future infections.

*Commercial:* There are many fungicides, including Banner Maxx, Bayleton, Heritage, Regalia, Tourney

### **Bronze Birch Borer**

**Hosts:** European and Asian species of birch

- **treat trunks by May 18, and repeat once or twice every 2-4 weeks**

### **Treatment:**

*Residential:* Keep trees healthy with optimal water and nutrients (including iron). We recommend hiring a commercial applicator that can reach all parts of a tall tree. Otherwise, use a Hi Yield permethrin product or Sevin.

*Commercial:* 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. Trunk sprays include permethrin, bifenthrin, or carbaryl.

### **Lilac-Ash Borer**

**Hosts:** lilac and ash; occasionally privet and mountain-ash

- **continue to protect trunks**

*Residential:* Hi-Yield permethrin product, Spectracide Triazicide (lambda-cyhalothrin), carbaryl

*Commercial:* Acelepryn (chlorantraniliprole), permethrin (Astro, Covert, Waylay), Sevin, or Onyx (bifenthrin)

## **CONIFERS**

### **European Pine Sawfly**

**Hosts:** pines

Larvae of the European pine sawfly are now feeding on last year's needles of mugo, Scotch, Austrian, and ponderosa pines. In large infestations, they will leave behind bare branches but thankfully, do not feed on the current season's buds. As a result, the new needles will often hide the damage.



Sawflies are not caterpillars. They are related to ants, bees, and wasps. They overwinter as eggs laid in slits along the length of needles. The larvae feed for about 4 to 6 weeks. They then pupate, and adults emerge in the fall to mate and lay eggs.

Initial damage looks like brown wilted foliage because the larvae are only feeding on the margins of the needles. As larvae mature, they group together and gorge on entire needles, sometimes causing complete defoliation. When attacked or harassed, the larvae rear back their heads in defense, and are able to eject a repellent substance from a sac off the foregut.

### **Treatment:**

Treatment is rarely needed, as feeding is localized and usually not severe enough to harm the plant. Because they feed together, removing a branch removes most of the larvae; hand-picking is another option.

If necessary, spray options include acetamiprid (Tristar, Ortho Max Flower, Fruit, and Vegetable Insect Killer) azadirachtin (Azatin, Safer Grub Killer), spinosad (Conserve, Green Light), horticultural oil, insecticidal soap. Bt does not work on sawflies.

### **Pine Pitch Moth (Sequoia Pitch Moth)**

**Hosts:** pines

- **treat trunk now and repeat 1 to 2 times**

In recent years, the incidence of pitch moth activity on pines in the Wasatch Front has increased. The reason for this increase is unknown, possibly due to stresses from drought or insects such as black pineleaf scale. Ryan Davis, the insect diagnostician for the Utah Plant Pest Diagnostic Lab, identified the primary species in Utah as sequoia pitch moth.

### Insect/Disease Activity continued from previous page



Pitch moths are clearwing moths whose larvae feed on the outer and inner bark of pine trees. Their feeding stimulates the tree to produce copious sap that forms large, drippy masses on the pine trunk. The larvae will also feed within the mass of pitch. If you remove the glob at the right time, you will often find a larva inside or close to the trunk.

From May through August, adult pitch moths lay eggs on pine trees, often preferring pruning or other wounds, branch collars, or existing pitch masses. When the eggs hatch, the larvae bore through the bark and create meandering tunnels in the cambium, or may bore into the sapwood. The feeding is usually localized around the pitch mass, and sometimes, the larvae will exit the wood and feed on the pitch. Smaller trees are at greatest risk of being affected by pitch mass borers. Larger, healthy trees can withstand attack, although the damage can appear quite extreme.

Keep in mind that after the moths exit the trees, the pitch mass will remain on the trunk, possibly for several years, unless they are removed by hand.

#### **Treatment:**

Management should focus on keeping trees healthy. Avoid pruning in June July during peak egg-laying. Manually remove existing pitch masses to prevent further egg-laying or to kill larvae inside. If a spray is warranted on larger trees, it should be applied by a professional.

*Commercial:* permethrin or bifenthrin (trunk sprays)

**Precautionary Statement:** Utah State University Extension and its employees are not responsible for the use, misuse, or damage caused by application or misapplication of products or information mentioned in this document. All pesticides are labeled with ingredients, instructions, and risks. The pesticide applicator is legally responsible for proper use. USU makes no endorsement of the products listed herein.

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