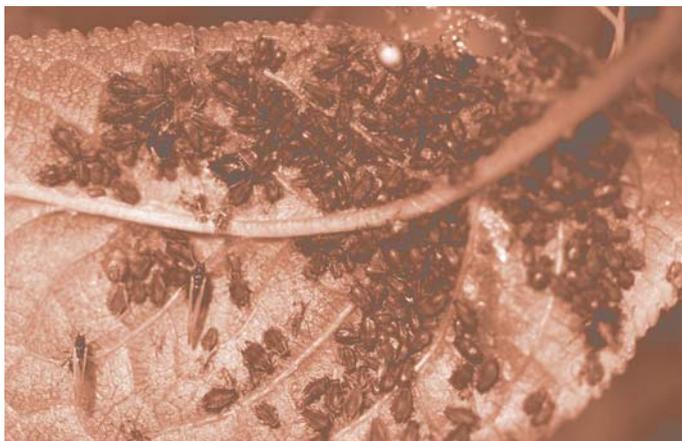


Aphids *a common sense guide*

Aphids are rarely noticed until they number in the hundreds. Fortunately, most trees and shrubs can tolerate moderate aphid infestations. There are several environmentally sensitive ways to keep aphids and their damage at a minimum.

W. Cramshaw, Colorado St Univ, bugwood.org



Black cherry aphids on underside of leaf.

Aphids are tasty to a large number of insects and their young.

— Marianne Binetti



Thurston County
Environmental Health Division
2000 Lakeridge Dr SW
Olympia WA 98502

Step 1: Prevention

Healthy plants resist disease and insect attack better than unhealthy plants. Start by meeting the needs of the plants.

- **Choose plants** that are suited to your soil and sun conditions. Some plants are notorious for attracting aphids, such as spruce and birch trees, lupines, and honeysuckles. If you want these plants in your landscape, expect aphids.
- **Add compost** or other organic matter to the soil.
- **Fertilize** with organic or slow-release (at least 50% insoluble nitrogen) fertilizer. Plants receiving a quick jolt of high nitrogen tend to have rapid, weak growth that is very attractive to aphids. Organic or slow-release fertilizers avoid this problem.
- **Water** appropriately.

Step 2: Look for Aphids

As temperatures warm, aphids reproduce rapidly. Beginning in March or April (January or February for spruce aphids) check vulnerable plants weekly. Look on the underside of young leaves

and shoot tips, or put out yellow sticky traps sold in garden centers.

Aphids may also be detected by the “honeydew” produced when feeding. Honeydew, a sweet sticky substance, can coat the plant and anything beneath it. Large numbers of ants climbing a tree or shrub may also point to aphids, as ants are attracted to honeydew.

Another clue is black sooty mold fungus, which grows on the honeydew. The black sooty mold fungus is unattractive, but does not damage the plant directly.

Some aphids are needed to support predator populations. Low to moderate numbers of aphids usually do not cause noticeable damage. However, because aphids feed by sucking out plant juices, large populations can cause leaf curling, yellowing, puckering, leaf distortion, and stunted shoot growth. If twenty percent of the plant is showing these signs, take action. If over fifty percent of the plant is showing these signs, the best time to act has passed, as most of the damage is already done. Actively searching for aphids is the key to preventing serious damage to plants.

Step 3: Encourage Helpful Insects and Birds

Encourage beneficial insects such as green lacewing, syrphid fly, braconid wasp, and lady beetle, also known as ladybug. These predators are very important to aphid control. Beneficial insect populations begin to rise after their food source (aphids or other pests) becomes available. Sometimes the delay can be as much as a few weeks.

Some beneficial insects are predators during one phase of their life-cycle and feed on flower nectar during another phase. Planting nectar-producing flowers will increase food supplies for many beneficial insects and help attract them to your yard. These include plants in the parsley and sunflower families,

-over-

such as parsley, carrots, asters, artemisia, daisies, marigolds, sunflowers, yarrow, caraway, and coriander. These all have tiny flowers, abundant nectar, and a long flowering period – all excellent qualities for attracting beneficial insects.

Clemson Univ. USDA, bugwood.org



Lady beetle (ladybug) larva preying on aphids.

Purchase aphid predators and release to supplement existing populations. Often, repeated releases are recommended. For example, for lacewings it is suggested to release every two weeks with at least three successive releases. The recommended amount of eggs or larvae to release varies; a typical range is 1,000 eggs per

900 to 2,500 square feet. If aphid damage is already severe and populations large, do not expect predators to quickly remedy the problem. Before introducing predators, dislodge as many aphids as possible with a strong spray of water.

Beneficial insects are at risk from pesticides. Unfortunately, aphids lay more eggs and grow faster than their predators, and, therefore, they recover from a pesticide application more quickly than do populations of beneficial insects. In this way, using pesticides may make your aphid problem worse! Protect and encourage beneficial insects to help nature help you.

Birds feed on aphids and other insects; even seed-eating birds and hummingbirds feed insects to their young. Adding a birdbath or bird feeder to your yard may help encourage birds to linger and feast on your aphids.

Step 4: Control Options

Physical Controls

- **Prune out infested plant parts.** If aphids are only on a few leaves or shoots, just prune out these areas and drop the infested plant parts in a bucket of soapy water.

- **Spray with a strong stream of water.** If aphids are widely spread out or high on a plant, wash the aphids off with a strong stream of water. Most dislodged aphids will not be able to return to the plant. Spray early in the day to allow plants to dry off before nightfall, in order

to reduce risk of disease. Continue monitoring; you may need to wash off plants weekly in late spring or early summer.

- **“Stick it” to the ants.** Ants protect aphids from natural predators and “farm” aphids for their honeydew. Place a band coated with a sticky material, such as Stick-Em or Tanglefoot, around the trunk of the tree or shrub to block off the main ant route. Prune out other routes such as branches touching buildings, the ground, or other trees.

The Last Resort – Chemicals

Use of the following low-hazard chemical controls is recommended only as a last resort. Always carefully read and follow the label directions. Follow recommended rates and wear protective clothing. Mix only the amount required and treat only those plants with large numbers of aphids.

- **Insecticidal soaps** made from potassium salts of fatty acids kill aphids and other soft-bodied insects on contact. Severe infestations may require repeat treatment.

- **Insecticidal vegetable oils** are effective against aphids and aphid eggs. Contact with the oil is necessary. There are a number of different products available made from oils such as canola, cottonseed, clove, rosemary, peppermint, or garlic. Certain oils can discolor blue spruce trees. Read labels carefully to determine limitations, timing, and safety directions.

For more information on gardening or pest control topics and other Common Sense Gardening guides, call the Thurston County Environmental Health Division at 360-754-4111 (TDD line 360-754-2933). Common Sense Gardening guides are also available free at local nurseries or online at: www.co.thurston.wa.us/health/ehcsg/.

Prepared by the Thurston County Hazardous Waste Program, a joint effort of the Thurston County Public Health & Social Services Department, Environmental Health Division; Thurston County Water and Waste Management; the cities of Thurston County; and the Washington State Department of Ecology.

April 2008

Properly dispose of unwanted pesticides at **HazoHouse** at the Thurston County Waste and Recovery Center, 2418 Hogum Bay Road, Lacey. Open Fri., Sat., Sun., and Mon., 8 am to 5 pm. Call the WasteLine, 360-786-5494, for more info.