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Aphids

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Aphids (Fig. 1 & 2) comprise a large group of small, soft-bodied insects that feed on many kinds of plants. Aphids may be yellow, green, purplish, black, or other colors. Aphids range in size from less than 1/16 inch in length to more than 1/8 inch. Each has a needle-like stylet by which it sucks sap out of leaves and twigs. (Aphids, therefore, do not chew. Chewing damage is caused by other insects.)

Aphids are often found on plants in large numbers, and are capable of rapid population increases. This rapid population growth occurs because most kinds of aphids hatch as females from overwintering eggs. These females give birth to living females only, which in turn give birth to living females, and so forth. Later in the season, winged males and females are produced, and soon the overwintering eggs are laid.

Many kinds of aphids produce a sticky shiny substance called honeydew. Honeydew often coats infested leaves and other plant parts, and may drip from infested plants to objects beneath. A dark fungus called sooty mold often grows on honeydew secretions. Additionally, some aphid species can transmit viral diseases particularly in certain vegetables. Fortunately there are not many such diseases transmitted to ornamentals; however, toxins in their “saliva” may cause leaf distortions on certain plants.

Management

Cultural, mechanical, biological

Predators such as ladybird beetles, syrphid fly maggots, and lacewing larvae often eat aphids. Certain parasites also feed on them. These beneficials help keep aphid numbers down, but populations often build up to the point where plant damage occurs before these predators and parasites suppress them.

If plant damage is occurring and the infested plant is small, a strong stream of water from a hose may remove enough aphids to keep their numbers below damaging levels. Plants should be inspected early and periodically during the growing season, and hosed off as necessary. Check leaf undersides, since aphids are often present there and may be overlooked. If the infestation is not discovered until leaf deformity has occurred, hosing will be much less effective in removing the aphids. Once the foliage is deformed, nothing can be done to correct the deformity. Be sure the stream is not so forceful as to damage tender plant parts. Ants frequently tend and protect aphids from their natural enemies promoting aphid population build up. Banding trees with sticky material can prevent ant interference with natural controls.

Chemical

There are a number of insecticides effective against aphids, including oils and insecticidal soaps. Specific management recommendations depend on the kind of plant infested and aphid present. Recommendations may be obtained from the WSU Cooperative Extension office in your county as you discuss your specific problem with them. Also consult the WSU Hortsense webpage (pep.wsu.edu/hortsense/) for current management recommendations.

The following table lists the key aphid pests, their key plant hosts, and overwintering stage and location on the plant. Instances where delayed dormant oil may be applied for aphid management are also noted:

Some Major Aphid Pests of Washington

Aphid	Key Plant Host	Winter Stage/Site
Maple aphid	*Acer* sp.	Main species as egg*/bark
Conifer aphids (*Cinara* sp.)	Conifers	Egg*/needles and bark
Cherry aphid	*Prunus* sp.	Egg*/bark
Apple aphid	*Malus, Pyrus, Crataegus* sp.	Egg*/bark
Rosy apple aphid	*Malus* sp.	Egg*/bark
Woolly apple aphid	*Malus* sp.	Mobile immatures/bark & roots
Rhododendron aphid	*Rhododendron* sp.	Unknown
Birch aphid	*Betula* sp.	Probably egg*/bark
Willow aphid	*Salix, Pyrus, Populus* sp.	Probably egg*/bark
Spruce aphid	*Picea* sp.	Adults, immatures/needles
Leafcurl plum aphid	*Prunus* sp.	Egg*/bark
Green peach aphid	Many, especially *Prunus* sp.	Primarily Egg*/bark or buds
Poplar gall aphid	*Populus* sp.	Egg*/bark

*This insect stage is vulnerable to delayed dormant oils applied to bark of key host plant.

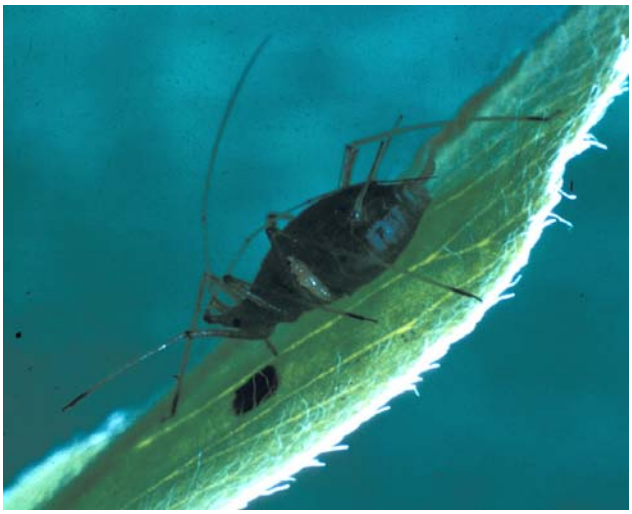

Fig. 1. A typical aphid.
Author unknown.

Fig. 2. Birch aphids.
By A.L. Antonelli.