

Prevent aphid damage in the garden

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A client brought in some broccoli and kale leaves from her garden to the Oregon State University Extension Master Gardener Plant clinic recently.

Q: What is causing the leaves on my broccoli and kale to pucker and become deformed?

A: After examining the leaves, it was evident that damage was likely caused by aphids. The tiny dreaded insects were crawling everywhere!

Aphids feed on a wide variety of garden plants and on trees such as birch, linden, and maple. Aphids are slow moving, soft bodied sucking insects that usually appear in clusters on new growth.

More than 1,300 native species of aphids inhabit North America. They come in a wide range of colors from black to pink to white and pale green, measuring $\frac{1}{16}$ to $\frac{1}{4}$ inch long. Aphids are pear shaped and usually wingless, with two tubes, called cornicles, at the posterior end.

Aphids cluster on leaves and stems, where they suck sap, causing curling and cupping of leaves. Severe infestations cause general loss of plant vigor and stunting, with reduced yields.

The aphids excrete excess sugars and sap in a liquid called honeydew. This honeydew attracts ants and an airborne fungus called sooty mold. The ants feed on the honeydew. This food



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source is so valuable that some species of ants tend the aphids, and even take them into their shelters during the winter.

Such ants tend to aggravate the aphid problem, distributing them to new plants. Aphid populations can explode because of the insect's ability to reproduce parthenogenetically (without fertilization).

After one or two generations, winged aphids are born, and these fly off to other plants. When male and females mate towards the end of the season, eggs are produced, enabling the insect to overwinter.

Aphids usually appear as the weather begins to warm. They will first be noticed on plant tips, near opening flower and

leaf buds. It is a good practice to monitor susceptible plants, and then at first sight simply wash off the plants with a stiff jet of water. Cradle the plant tips in your hand as you wash off the pests. Sticky honeydew and sooty mold can be washed off with a mild soap and water rinse. These two methods are especially

recommended for aphid attacks on edible plants.

Adult aphids can also be killed by spraying plants with insecticidal soap or with the botanical insecticide neem. Take care to apply these treatments to the stems and the undersides of leaves. Severely infested annuals may not recover from aphid attack; it is perhaps better to dig these out and dispose of them.

Releasing predator insects such as ladybugs and lacewings can be effective in reducing aphid infestations in the spring.

Aphids are attracted to the color yellow and this can be used against them. Bright yellow plastic dishpans make a good trap when filled with soapy water and set near infested or vulnerable plants.

Properly fed plants tend to be less troubled by aphids. Too much nitrogen can be as bad as too little. Take care to use a well balanced fertilizer and water your plants regularly. Apply a thick mulch in the summer to keep soil cool and moist.

Do you have a gardening question? Please email, call, or visit the Douglas County Master Gardener Plant Clinic at douglasmg@oregonstate.edu, 541-672-4461, or 1134 S.E. Douglas Ave., Roseburg.

Douglas County Master Gardeners are trained volunteers who help the OSU Extension Service serve the people of Douglas County.