



GARDEN BAD GUYS - APHIDS

By Nanette Londeree, Marin Master Gardener

One of the unwanted visitors to the spring garden arrives just about now. That pulsating mass of tiny pests that cloak the new growth on your roses, elderberries, viburnums or peach trees are at best an unsightly nuisance and at worst, creatures that can damage tender new growth on plants and spread disease. Welcome to the world of aphids.

The family Aphididae contain over 200 species of temperate-zone insects that suck the juices out of a wide variety of landscape plants and agricultural crops. Almost every plant has one or more aphid species that occasionally feeds on it with the Compositae, Coniferae, and Rosaceae plant families supporting the greatest numbers of aphid species.

The small (1/8 inch long), pear-shaped, soft-bodied insects are most often green in color, with others that are white, yellow, pink, brown, black, or mottled. Some even look waxy or woolly from a secretion they exude over their body surface. In addition to long legs and antennae, they have black cornicles ("exhaust pipe" tube-like projections at the rear of the abdomen) that distinguish them from all other insects. Shiny black aphid eggs live through the winter in protected nooks and crannies on the plant. In the spring, eggs hatch into females and during the warm growing season, each female can produce as many as 12 offspring a day without mating. The young, called nymphs, molt about four times before becoming adults, leaving their shed skins behind (often a tell-tale sign of their presence). During warm weather, an aphid can go from a newborn nymph to a reproducing adult in about a week. In the fall, triggered by the change in day length, winged sexual forms (males and females) are produced; they mate, the females lay eggs and starts the cycle over again.

While you may observe an aphid feeding singly, most often they're seen in masses, covering succulent new growth on plants. Their long, slender mouth-parts are used to pierce stems, leaves, and other tender plant parts and suck up plant liquids. Really large colonies of feeding aphids can weaken plant growth, cause leaves to yellow, curl or drop early. Some species can distort plant stems or fruit or cause galls on stems, leaves or roots. While landscape plants can generally tolerate extensive feeding by aphids, they can cause more serious damage to annual crops through transmission of viral diseases.



As aphids feed, they produce honeydew that attract ants. In fact, many species of ants are so addicted to this sweet drink that they will protect the aphids from various predators and move them to new plants if the one they are on starts to wilt. Some ants even build small shelters over species that feed near the base of the plant, to keep root-aphids inside their own nests. Any honeydew the ants don't consume can end up supporting the growth of black sooty mold.

The best method of control is prevention. Aphids love the rapidly growing supple new growth on plants receiving high levels of nitrogen fertilizer, so don't use any more nitrogen than needed. Monitoring for their presence, including ants and honeydew, will also help you take early action. If you see them knock them to the ground with a strong stream of water. They're poor climbers and probably won't re-establish; they also run a high risk of getting eaten by ground-roving insect predators.

They're the favored food of many natural enemies including lady beetles, soldier beetles, lacewings and syrphid fly larvae. Encouraging these beneficials into your garden can often keep aphid populations in check. If natural predators or a blast of water isn't enough to control these pesky creatures, try using an insecticidal soap, or a botanical insecticide like *Neem*.

Top photo of aphid infestation on rose bud courtesy of Baldo Villegas; bottom, honeydew and sooty mold growth courtesy UC IPM website.