

Potomac Rose Society Information Bulletin

DEDICATED TO SERVE THOSE WHO ENJOY ROSES
District of Columbia and Potomac Area of Maryland and Virginia
Affiliated with the American Rose Society

ROSE APHIDS

About a dozen kinds of aphid have been found on roses. Common kinds are the Rose Aphid (*Macrosiphum rosae*), the Green Peach Aphid (*Myzus persicae*) and the Melon Aphid (*Aphis gossypii*).

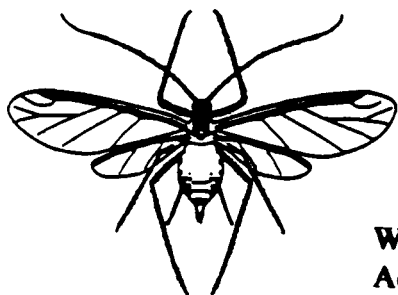
DESCRIPTION

The adult rose aphid is large, 2.5 mm long, with long dark legs and honey tubes. Its body is pink, purplish or green. Melon aphids are smaller, 1.0 - 1.5 mm long, with yellow to dark green bodies. Green peach aphids are generally a pale yellow-green. Some adults of all species have wings and can fly. Nymphs resemble wingless adults, but are smaller. The eggs are small and generally need 10x magnification to be seen.



Wingless Adult

*Actual size
approximately
1/20 of size
shown.*



Winged Adult

The Rose Aphid (from the North Carolina Extension Service Bulletin: *Insects & Related Pests of Shrubs*)

LIFECYCLE

Each aphid species overwinters on certain types of plants, and feeds on a wider range in the summer. The cycle starts when the sap rises in early spring, or even late winter in warm weather. The eggs hatch, and the tiny nymphs and the females begin to feed.

Rose aphids feed primarily on roses, and may also feed on pyracanthas, hollies and perennials. Aphids feed by piercing the leaves and extracting the sap. When they feed, some species excrete honeydew, a sugary solution, which on drying may support black fungi which can cover a leaf. The honeydew provides food for ants, which protect and "farm" the aphids, taking them to new plants when food runs low. The honeydew also attracts parasites and predators that also help control the aphid population.

Reproduction throughout the growing season is by birth of live female young. In warm weather generations can follow rapidly. In late fall, a generation of adult males and females are produced. These mate, and females then lay their eggs on host plants. (In the case of the rose aphid, on rose canes on or near the buds.) The eggs, and perhaps some of the females, overwinter, but may be killed by very cold weather.

During the growing season, aphids can be transferred from plant to plant; if they have wings they can fly, but wingless forms can also be carried by the wind; some species are also transported by farming ants.

DAMAGE

The insects feed on tender shoots and buds. Single plants can tolerate fairly high aphid populations, but the quality and quantity of flowers can be reduced. Some species may also transmit harmful plant viruses.

CONTROL

The object of control is to reduce the aphid population to a level where they cause no significant damage. It is not possible in practice to eliminate all the aphids on a bush, as some may escape the spray or be immune to it. Even if it were possible, aphids could come in from other plants.

Overwintering eggs and females can be killed with horticultural oil or removed by hard spring pruning. The adults and nymphs can be removed by a water jet, by predators, or by sprays which dehydrate, suffocate or poison the insects.

Common aphid predators include the lady beetles, lacewing adults and larvae, the larvae of the syrphid (*flower or hover*) flies, nabid bugs, and parasitic wasps. These are tiny wasps which lay their eggs in or on the aphid larvae. After hatching, the young feed inside the larva, leaving hard, hollow "skeletons" called mummies.

Water jets are effective because, once removed, the wingless insects will generally not climb back onto the bush.

Horticultural soaps kill aphids (*and other soft-bodied insect forms such as caterpillars*) by dehydrating them.

Horticultural oils suffocate aphids, and also kill the eggs.

All of the above methods, as well as contact poisons, are effective only for a short time after application. They have to be repeated several times to control further infestation. Systemic poisons, that is poisons which remain active in the plant, and predators have longer term effects.

CHOICE OF CONTROL METHOD

Look before you spray. Don't spray if there are only a few aphids. Remove them by brushing them off the plant. If there are aphids, the leaves should be examined for predators, and also for aphids containing wasp parasites. If these are present, they will probably destroy the aphids on their own. Wait and see what happens.

Predators can be bought and liberated on the rose bushes, but more information is needed on their use in this area.

If spraying is needed, only infested bushes should be treated. A jet of water will not harm the rose bush. It will of course remove predators, but these will return later if the aphids do.

The least harmful insecticides are insecticidal soap and horticultural oil. Soap kills soft-bodied insects (*pests and predators*) as well as some larvae. It can also kill mites and their eggs. Horticultural oils may also kill some predators and harmless insects, but predators are very mobile and most will escape and return when the aphids increase again. If a bush has to be sprayed again, alternate soap and oil to reduce the likelihood of immune insects surviving.

The use of more poisonous insecticides is hardly ever justified with aphids.

This information bulletin is based on an article by Hubert Jessell for *The Newsletter of THE POTOMAC ROSE SOCIETY*. If you have questions on this or any other aspect of rose growing, please contact one of our consulting rosarians for free advice. For information regarding membership, contact Joseph M. Covey, (301) 279-0028.