

HOME GROUNDS FACT SHEET

CORNELL

Cooperative Extension
Nassau County



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Aphids

Aphids, or plant lice, are small (1/8" or less), soft-bodied slow-moving insects usually found in clusters on stems and leaves. No general description will fit all the aphids that may be encountered by the home gardener. Many are predominantly green, others black, white, yellow, brown, gray, red-striped and spotted. Some have wings. Woolly aphids have long threads of white wax on their bodies.

Seasonal history

Most aphids pass the winter in the egg stage on twigs. Activities start in the spring with the appearance of new leaves. Rapid breeding, producing very high populations, begins in late spring and continues throughout the summer and early fall.

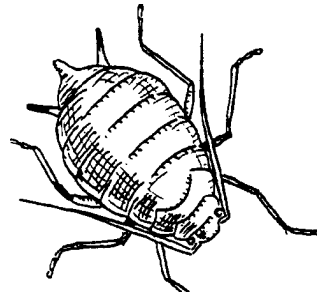
Injury

Aphids injure plants by feeding on stems and leaves. Most frequently they are found on newly developed succulent growth. Their mouth parts are like miniature hypodermic needles that penetrate the plant and puncture cells to remove the contents (commonly called sap). Sap contains sugar and other plant metabolites that the aphid uses for nutrition. Large numbers of feeding aphids cause the plant to wilt and stunt growth. As they feed, they inject saliva into the plant, which sometimes causes misshaped and distorted growth called galls. The saliva often carries debilitating or lethal viruses, a very serious plant problem. Deciduous and evergreen trees, shrubs, annual and perennial flowers and vegetables are all favorites on the aphid's menu.

Aphids excrete a clear, sticky substance called honeydew, upon which a black fungus grows. Known as sooty mold, this fungus reduces the aesthetic value of ornamentals and causes injury by interfering with the amount of sunlight reaching the foliage. This sooty mold appears on the upper surface of leaves, twigs, branches and fruits of many deciduous and evergreen trees and shrubs. The fungus is not pathogenic to plants but obtains its nourishment from honeydew. On some trees, no obvious damage can be noticed. Shrubs

APHID OR PLANT LOUSE

Order Homoptera - length, 3/32 in.



Minute, soft-bodied, green insect; attacks vegetation; sucks plant juice, secretes honeydew.

under trees that are heavily infested with honeydew-producing insects may be seriously damaged or killed. Azalea, Rhododendron, Pieris, Cotoneaster, Holly and other low-growing shrubs growing under shady conditions are susceptible to serious damage. To prevent sooty mold, you must control the insects.

Management Options

Integrated Pest Management (IPM) Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce plant problems. These include using resistant plant varieties, proper plant selection and placement, good aftercare and biological and/or mechanical controls. As a last resort, after all other remedies have been explored, a pesticide* that is least toxic to people and natural predators, can be considered. Prior to using any pesticides, plants should always be monitored for the degree of infestation and a sensible control measure considered.

* A pesticide is a substance that kills, or attempts to kill, a particular pest, e.g. **insecticide**, **fungicide**, **herbicide**, etc.

Predators such as ladybird beetles, syrphid fly larvae, and internal parasites are usually found when there are aphid populations. Pesticides applied to foliage will also kill predators.

E-1-1 DWM revised RT 1/03

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Dormant spray

Horticultural oils can be applied to kill overwintering eggs. This will also help control mites and scales. Oils are most effective where plants have been neglected for several seasons and noted pest populations have become abundant. Oil gives protection by suffocating aphids and does not act as a toxin. It poses a considerably lower threat to the environment. Follow dilution directions on the label.

Summer sprays

Chemical pesticides may be available. If you choose to use a chemical pesticide, contact your local Cooperative Extension office for specific recommendations.

Vegetables

Check for natural enemies such as gray-brown and bloated parasitized aphids (mummies), lacewings, and the alligatorlike larvae of lady beetles. Wash aphids off vegetables with a sharp stream of water. Do it early in the day. Predatory or parasitic insects (such as lady beetles, lace wings or braconid wasps) can help to reduce aphid populations, but they may not be sufficient to prevent damage. If you choose to spray vegetables, read the label before purchasing since not all chemicals are labeled for use on all vegetable crops. The directions will tell you how many days you must wait between spraying and harvest.

Fruit trees

For fruit trees, apply spray at pink if one colony is found per ten terminals. After bloom, treat when 30% of terminals are infested.

Trees and shrubs

Sprays may be applied during the growing season according to label directions. Make sure the plant to be treated is listed on the material label.

Treat early in spring when Growing Degree Days are 7-120. (See Home Grounds Fact Sheet E-1-0 for an explanation of Growing Degree Days - GDD.)

Do not use a hose-end sprayer!

Hose-end sprayers do not dissolve, mix or apply pesticides accurately or evenly. The changing rates of water pressure, different hose diameters and water temperature provide variables that prevent accurate mixing and delivery. A hand pump or powered tank sprayer, where the pesticide is pre-mixed to the proper dilution, allows for the application of a known mixture as per label instructions.



"This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office (631) 444-0341. Read the label before applying any pesticide. Cornell Cooperative Extension and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products is made or implied."