



LACE BUGS ON TREES AND SHRUBS

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Lace bugs attack certain broad-leaved evergreen and deciduous trees and often go unnoticed until leaves are heavily damaged. Both lace bug adults and nymphs have piercing-sucking mouthparts with which they take sap from the underside of the leaf.

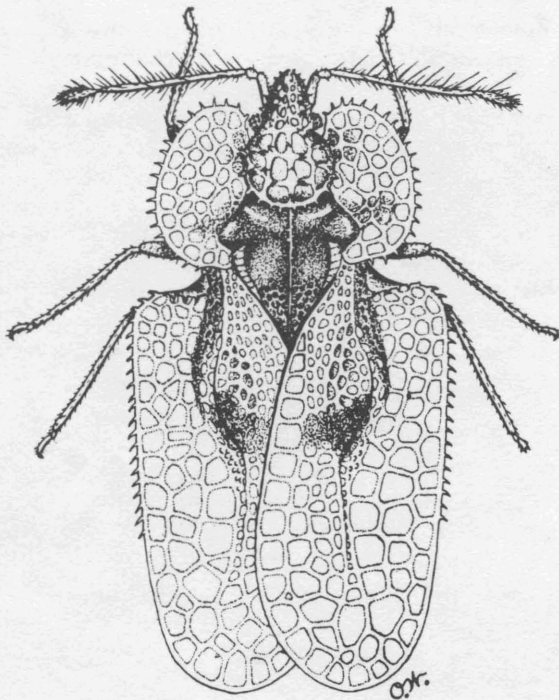


Figure 1. Adult lace bug

Damage appears on the upper leaf surface as white, yellow or brown specks. Entire leaves may be completely discolored, destroying all food producing tissue.

Description

Adult lace bugs are 1/8 to 1/4 inch long (3 to 6 mm), flattened and rectangular in shape. They get their name from the appearance of the area behind the head and the wing covers. The area forms a broadened, gauze- or lace-like covering over the body of the insect. The wings of most lace bugs are partially transparent.

The lace bug nymph is flat and oval in shape. With magnification, spines can be seen projecting from the body in all directions. The nymph goes through five growth stages (instars). Its old skin often remains attached to the lower leaf surface after molting.

Biology and Habits

Female lace bugs deposit their eggs on lower leaf surfaces, usually alongside the leaf veins. A brownish-black substance is secreted over the eggs to secure them to the leaf. Leaves of heavily infested plants will have many of these small, dark "varnish spots." Both nymphs and adults move slowly when disturbed and adults are not likely to fly. The entire life cycle from egg to adult lasts about 30 days. Three to five or more generations are produced each year, depending on the temperature and other environmental factors.

The winter is passed in the adult or egg stages. Lace bugs that are found on deciduous plants pass the winter in the adult stage. However, the oak lace bug

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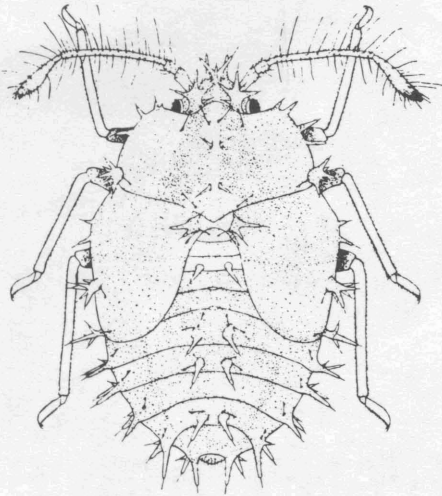


Figure 2. Nymphal lace bug

also may pass the winter in the egg stage. Overwintered adults become active in the spring as leaves begin to develop. Lace bugs that attack broad-leaved evergreens overwinter as eggs in the host plant leaf tissue. The overwintered eggs hatch in April or May and the emerging nymphs begin to feed immediately.

Host Plants

Lace bugs commonly damage several broad-leaved evergreens; among these are azalea, laurel, pyracantha and rhododendron. Deciduous trees that may be damaged by one of several species of lace bugs are sycamore, oak, hawthorn, quince, American elm, black walnut and apple.

Damage

Damage caused by lace bugs to the foliage of trees may be insignificant, but heavy lace bug infestations greatly reduce the trees' ability to produce food and result in reduced growth. Trees with reduced vigor

are more susceptible to damage from other insects, diseases or unfavorable weather conditions.

Lace bug damage to broad-leaved evergreens can detract greatly from the plants' beauty. Heavy infestations may be the primary cause of plant death. The damage caused by lace bugs on these evergreens will be evident for more than a year unless damaged foliage is removed from the plant.

One of the most common lace bugs in Texas is the hawthorn lace bug, the major insect pest of pyracantha. It also attacks hawthorn and quince. Discoloration of the pyracantha foliage caused by lace bugs feeding on the underside of the leaves is often observed in mid-July. By late August, most of the leaves may be chlorotic and incapable of producing food for the plant.

Control

Control measures should be applied before lace bugs have caused unsightly damage. Valuable plants, susceptible to lace bug damage, should be inspected every 2 weeks during the growing season for developing lace bug infestations. If only a few lace bugs and little or no damage are observed, wash them off with a strong stream of water from a garden hose.

When chemical control is necessary, use products containing dimethoate (Cygon® or DeFend®), malathion, Orthene® or carbaryl (Sevin®). Repeated applications at 10- to 14-day intervals may be necessary to maintain effective control.

Follow all directions, particularly safety precautions on the insecticide package label. Although any of several insecticides will control lace bugs, not all are labeled for use on all host plants. Be sure to follow the information as it appears on the label. Insecticide label clearances are subject to change and changes may have occurred since this publication was printed. The pesticide USER is always responsible for the effects of pesticide residues on his own plants as well as problems caused by drift from his property to other properties or plants.

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15M — 7-79