

**insect answers**



## HONEYLOCUST POD GALL MIDGE

The honeylocust pod gall midge, *Dasineura gleditschiae*, was first reported in Rhode Island in 1866. Since that time, it has become a serious pest of ornamental honeylocust trees in various parts of North America. It was first found in large numbers in Washington in Yakima County in 1976. It spread to Walla Walla and Grant Counties in 1980 and is now present throughout Washington and Oregon. The main hosts are thornless honeylocust varieties; although thorned varieties have been attacked.

### Biology and Description

Adults are small, delicate midges or gnats about 1/8 inch long (3mm). Males are generally black while the females are black with red abdomens. Eggs are microscopic, kidney shaped, and vary in color from lemon yellow to light amber. The larvae, when full grown, are about 1/4 inch long (6mm) and white or yellowish in color.

Adults first appear in early spring, apparently after overwintering as pupae in the litter or soil beneath trees. Timing coincides with the first flush of growth of the host locust trees. Females lay their eggs singly or in clumps of two to five on the leaflets. Larvae hatch in one or two days and start feeding immediately. Larval feeding causes the leaflet to curl inward forming a gall. Larvae pass through several instars or stages of development and, when they have completed feeding, transform to pupae (resting stage) within the pods.



Fig. 1. Honeylocust pod gall midge larva inside gall.



Fig. 2. Leaflets galled by honeylocust pod gall midge.

Adults emerge and leave the pods. The length of the cycle from egg to adult varies from 15 to 30 days depending on weather conditions. Adults continue to emerge throughout the summer, usually until the first killing frost. There may be from five to seven generations a year depending on the weather.

### Damage

Larval feeding causes the leaflets to become globular, resulting in formation of a pod-like gall. With heavy infestations, virtually all of the leaflets on an individual tree may become galled. The galled leaflets dry up, turn reddish, and may be shed prematurely. Repeated loss of leaves sometimes kills small branches, but usually new growth will develop at the base of dead branches and larger trees are not killed. Trees do become deformed and may lose some of their ornamental value. The midge appears to attack all varieties of honeylocust; light to heavy infestations have been observed on Sunburst, Shademaster, Skyline, Imperial, Ruby Lace, Moraine, and Halka.

### Control

Since the honeylocust pod gall midge rarely kills established trees, the problem during heavy in-

festations is largely one of unsightliness. Heavily infested branch tips can be pruned and burned. To date no biological control agents for this pest have been found.

With the exception of very heavy infestations, chemical control is not necessary since this pest causes only cosmetic damage. Chemical control may precipitate secondary pest problems.

The following chemicals are registered as foliage sprays on ornamental or shade trees and will kill the adult midges: (1) Meta-Systox-R + dylox\*, (2) Orthene, (3) malathion, (4) Sevin XLR.

None of these materials is effective for a long period of time and applications may be needed every three weeks. Insecticide applications can be easily synchronized to adult emergence by observing when large numbers of midges are swarming around the trees on warm, sunny days. Be sure to carefully read and follow directions and precautions on the insecticide label. Use application rates suggested for pests attacking trees. The labels do not refer specifically to honeylocust pod gall midge.

\*Available as a mixture under the name Lilly Miller Rose and Evergreen Spray.

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Use pesticides with care. Read the label and follow its directions. Never smoke while using pesticides and avoid breathing the spray or dust. Wear natural rubber gloves when handling pesticides. Wash hands and face carefully with soap and water after applying. If insecticides are spilled on skin or clothing, remove contaminated clothing and wash skin thoroughly. Store pesticides in their original containers and be sure labels remain on the containers. Keep containers away from food or feed and out of reach of children or irresponsible persons.