



Entomological Notes

Department of Entomology

BOXWOOD LEAFMINER

Monarthropalpus flavus (Schank)

The boxwood leafminer is a serious pest of Pennsylvania plantings of boxwood, *Buxus* spp. It was first reported as a pest in the United States in 1910. Now it is found across the United States wherever boxwood grows.

DESCRIPTION

Eggs are white to transparent, and they hatch into small whitish to lemon yellow, 3 mm long larvae commonly called maggots. Adults are small yellow to orange-red, 2.5 mm gnat-like flies.

LIFE HISTORY

This pest overwinters as a larva in the leaf blister. During the spring the leaf blister develops a translucent “window”. In early spring larvae molt into the resting stage called a pupa. During May, this stage wriggles through the blister and protrudes from the lower leaf surface, and adults emerge. Adults mate soon after emerging. Mated females deposit eggs in new foliage by thrusting a curved needle-like ovipositor through the lower surface of the leaf. The eggs may be seen easily, especially on new growth, by holding the leaf up to the light. After laying an average of 29 eggs, the tiny female fly dies. The eggs hatch in about 14-21 days into young larvae. The larvae continue to grow and feed in the leaf through the remainder of the summer. One generation of this pest occurs each year in Pennsylvania.

DAMAGE

The larval stage of this pest can cause extensive damage to foliage. Injury to the host plant is caused by this stage feeding between the upper and lower leaf surfaces. Feeding produces a blister on the leaf, which may or may not become discolored. Heavily infested leaves may contain several leaf blisters, and the entire leaf may become swollen. Infested leaflets often drop prematurely resulting in unhealthy, ragged plants with occasional dead twigs. Most varieties of boxwood are attacked by this pest.

MANAGEMENT

Apply registered insecticides according to label directions to manage this key pest in May when weigela is in bloom.

WARNING

Pesticides are poisonous. Read and follow directions and safety precautions on labels. Handle carefully and store in original labeled containers out of the reach of children, pets, and livestock. Dispose of empty containers right away, in a safe manner and place. Do not contaminate forage, streams, or ponds.

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