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Eggplant Lace Bug

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Introduction

Eggplant lace bug, *Gargaphia solani* Heidemann, belongs to the family Tingidae in the order Hemiptera.

Description

Adult eggplant lace bugs are a mottled grayish to dark brown in color and measure 4 mm (0.16 inch) long. Their bodies are flattened but sculptured, with broad lateral projections behind the head and lace-like wings (Fig. 1). The antennae are darker at the tips. Nymphs are wingless and yellowish, developing black markings and black antennae as they mature. Older nymphs have many spiny projections over the body. Mature nymphs measure about 2 mm (0.08 inch) long.

Figure 1. Adult eggplant lace bug (Debbie Roos, North Carolina Cooperative Extension).

Life History

Adults overwinter in weedy debris, becoming active in May. Females deposit eggs on the underside of host leaves and guard the eggs and developing nymphs. Nymphs cluster together as they grow (Fig. 2) and pass through 5 instars before reaching the adult stage. New adults disperse to new plants. Complete development from egg to adult takes about 20 days. There may be 5 or more generations a year.

Figure 2. Eggplant lace bug nymphs (Debbie Roos, North Carolina Cooperative Extension).

Common Host Plants

Eggplant lace bug is found on eggplant and less frequently on tomato and potato. Eggplant lace bug can also be found on sunflower, sage, cotton, weedy horsenettle, and nightshades (*Solanum* spp.).

Damage

Nymphs and adults congregate together and suck plant juices on the underside of leaves. The upper surface of infested leaves will show stippling and bleaching or scorching before dying, and eventually the entire plant may die as populations grow. Leaves with large numbers of eggplant lace bugs will also have numerous cast skins and dark, shiny fecal deposits on the underside. Generally eggplant lace bug is a minor pest that doesn't cause problems in every year, but occasionally populations can build and kill plants before detection.

Distribution

Eggplant lace bug is found throughout the southern United States.

Cultural Control

Remove garden debris and weedy material to eliminate overwintering sites for adults. Scout fields for the presence of eggplant lace bug regularly, examining the undersides of leaves on multiple plants at different locations through the field. In home gardens with only a few eggplants, crush and destroy any nymphs and adults when found. Eliminate weedy horsenettle and nightshades (*Solanum* spp.), which serve as alternate hosts for eggplant lace bugs.

Organic/Biological Control

Generalist natural enemies such as ladybugs, spiders, and pirate bugs will attack eggplant lace bug. Natural enemies should be conserved when possible. Insecticidal soaps, neem oil, and pyrethrins can be used to spot treat eggplant lace bugs on the underside of leaves when found in home gardens.

Chemical Control

Treat with a registered insecticide. For treatment recommendations for eggplant lace bug, see the current Mid-Atlantic Commercial Vegetable Production Recommendations (VCE Publication 456-420) for commercial fields or the Home Grounds and Animals Pest Management Guide (VCE Publication 456-018) for home gardens. As with all pesticides, follow the label instructions carefully with regards to rates and precautions. Treatments should be directed to the underside of foliage, where eggplant lace bug is found.

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2021 3104-1548 (ENTO-415NP)