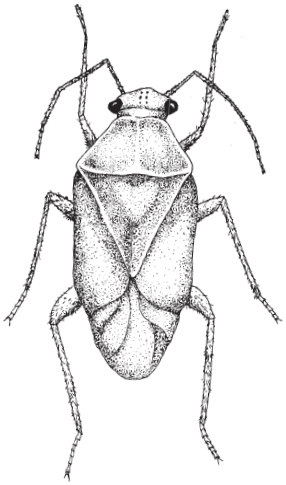
Ash plant bug

P.J. PELLITTERI and C.F. KOVAL

A small insect called the ash plant bug attacks ash trees in June and July, causing thin, discolored, spotted, or distorted leaves. In Wisconsin, this damage is very common in early summer and can be mistaken for other problems.

While plant bugs do not kill trees, infested trees look unsightly, grow more slowly, and may exhibit die-back of small branches. Repeatedly attacked trees are more susceptible to other pests, particularly borers.



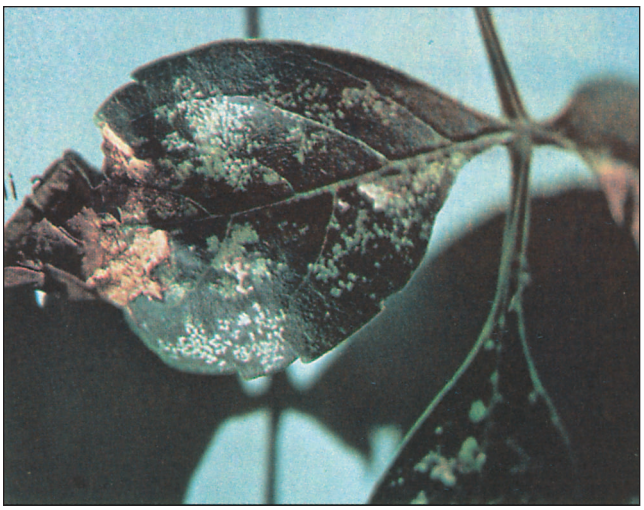
Actual size: 

Symptoms and effects

Premature leaf drop—ranging from a few leaves to complete defoliation—together with burned appearing, stippled, and distorted leaves are common symptoms.

The ash plant bug, *Tropidosteptes amoenus*, is the most common species associated with shade and nursery trees in Wisconsin. The insects attack only ash trees, and all ash trees are susceptible.

Ash plant bugs are sucking insects that pierce plant tissues and feed on cell liquids. Their saliva is toxic to the plant cells, and a small area around each feeding puncture becomes bleached because of the destruction of chlorophyll. Light to moderate feeding causes yellow stippling and spotting of the brown leaves.



Typical damage by the ash plant bug.

Extensive feeding causes tissue death—brown, curled areas on leaves which appear burned. To distinguish ash plant bug damage from various leaf diseases, look for the small, varnish-like, brown or black excrement spots on the underside of leaves.

Life cycle

Although a number of different plant bug species are involved, their life cycles are similar. Ash plant bug eggs winter in small twigs and branches on the tree. The eggs hatch shortly after the buds open in the spring. Immature plant bugs (called nymphs) begin feeding immediately on the new shoots, petioles, and developing leaves. Within 3 to 4 weeks (by mid-June) the nymphs mature and mate. Adult females lay eggs by drilling holes into small twigs with their beaks and then inserting their egg-laying ovipositor into the woody tissue. These eggs hatch in 7–10 days. The second generation feeds from early summer until the first heavy frost. Eggs laid in July and August don't hatch until the following spring.

Adults are slightly smaller than ¼ inch long, varying in color from pale yellow marked with brown to almost black. They are extremely active insects which scurry undercover or fly away when disturbed. Because of their shyness and quickness, plant bugs are often overlooked, but their feeding damage always signals their presence.

Ash trees grown in open, sunny sites are the most susceptible to plant bug attack. Small or newly transplanted trees are particularly prone to severe damage. The spring generation does the most noticeable tree damage because the insects prefer feeding on young succulent tissue. The leaves appear distorted, burned, and stippled even before they are fully expanded. In addition, egg-laying punctures may permit diseases to enter the tree. Because populations tend to build on a given tree over time, a recurring problem may require remedial action.

Control

Cultural

Keep trees in a vigorous growing condition. Supply adequate moisture and fertilizer to help trees withstand plant bug damage. For small trees, a forceful stream of water will remove and kill many nymphs. However, adult plant bugs can return to the tree.

Chemical

Control ash plant bugs with an insecticide, making the first application in early to mid-May when the leaves are expanding, or when damage first appears. Treat only if insects are present. Treatment is most effective when temperatures are between 55° and 85°F. Large areas such as nurseries may require repeated treatments.

Insecticides registered for use on ash plant bugs are acephate (Orthene), acephate plus miticide (Isotox), bifenthrin (Talstar), carbaryl (Sevin), chlorpyrifos (Dursban), cyfluthrin (Tempo), diazinon, insecticidal soaps (Attack, M-Pede, Safers), lambda-cyhalothrin (Scimitar), methoxychlor, and pyrethrin plus rotenone (Pyrellin). Organic growers consider insecticidal soaps and Pyrellin acceptable for use. Additional materials are registered for nurseries.

Large trees are difficult to spray, however, they are less likely to require treatment. If treatment is necessary, consider consulting a professional tree care service or arborist for assistance.

References to products in this publication are for your convenience and are not an endorsement or criticism of one product over other similar products. You are responsible for using chemicals according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from chemical exposure.

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