

IOWA STATE UNIVERSITY

Extension and Outreach

Horticulture and Home Pest News

Hawthorn leafminer

Description of hawthorn leafminers

A moderately common pest problem observed on hawthorn trees in May and June is the hawthorn leafminer, *Profenusa canadensis*. The leafminer is the larval stage of a sawfly. The larvae live inside the leaf causing the leaf tips to turn brown. Leaves appear to be diseased or damaged by frost. However, frass and at certain times even the larvae can be seen between the upper and lower epidermis by holding the leaves up to the sun.

Life cycle of hawthorn leafminers

Hawthorn leafminer spends the winter in the soil. Adults appear as the leaves are beginning to emerge and lay their eggs on the leaves. Tiny, newly emerged larvae tunnel into the inner leaf tissue and feed at the leaf tip. There may be several larvae in each leaf. Larvae grow to almost 3/8 inch in length by mid-June. Then they cut a hole through the lower leaf surface and drop to the ground to pupate. There is only one generation per year.

Damage caused by hawthorn leafminers

Damage appears to be disfiguring during early summer but trees are not killed and new growth conceals the damaged leaves by mid-summer.

Management of hawthorn leafminers

Control is generally not necessary. The damage is mostly aesthetic and trees recover by mid-summer. Picking infested leaves is not practical and destroying fallen leaves is of no benefit since the insect overwinters in the ground not in the leaves.

Problems can be avoided by plant selection. The hawthorn species *Crataegus crus-galli*, *C. persimilis* and *C. erecta* are the most susceptible and should be avoided if this pest is troublesome in our area.

Insecticides are rarely warranted. Foliar sprays could be applied to prevent damage by spraying in early May when the leaves are just fully expanded or when the first sign of browning appears.

Do you live in Iowa and have an insect you would like identified?

The Iowa State University Plant & Insect Diagnostic Clinic will identify your insect, provide information on what it eats, life cycle, and if it is a pest the best ways to manage them. Please see our website for [current forms](#), [fees](#), and [instructions on preserving and mailing insects](#).

[Contact information for each states diagnostic laboratory for U.S. residents](#). If you live outside of Iowa please do not submit a sample without contacting the [Plant & Insect Diagnostic Clinic](#).

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