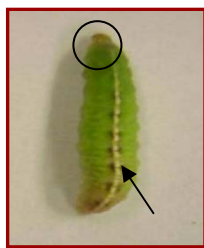


The clover leaf weevil occurs throughout much of the United States, wherever clover and alfalfa are grown. It is often confused with the alfalfa weevil, one of the major insect pests of alfalfa. Clover and alfalfa are the primary hosts of the clover leaf weevil, but it also may infest corn, goldenrod, Jerusalem artichoke, snap bean, timothy, and wheat.

Description

Clover leaf weevil adults are approximately 5 to 10 mm long. They are brown colored with small gray, brown, and yellow scales giving it a mottled and striped appearance. Newly laid eggs are pale yellow, 1 mm long and gradually darken to black as they near hatching. Larvae are green with a white strip down the center of their backs. The white stripe is bordered by pink or red smudges. Larvae have a brown head and reach 12 to 13 mm in length. The pupa is 5.5 to 7 mm long, yellow-green in color, and is enclosed in a cocoon.

The clover leaf weevil can be confused with the alfalfa weevil. Larvae of both species are similar, but have distinct differences in appearance. Alfalfa weevil larvae are also green with a white stripe down their backs, but have no pink coloring. Head capsules of alfalfa weevil larvae are black. Adult alfalfa weevils are small brown beetles that have a distinctive dark, narrow stripe that extends down their back and about one quarter of the size of an adult clover leaf weevil.



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Clover leaf weevil larva



Alfalfa weevil larva



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Clover leaf weevil cocoon



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Clover leaf weevil pupa



OU Biological Survey

Clover leaf weevil adult

Life Cycle

There is only one generation each year. The adult, which is present from July through October, lays its eggs in stems, on stalks, or near the crowns of plants. The small green larvae hatch in the fall and spend the winter in the soil. Most eggs will hatch in the fall, but some will overwinter and hatch in the spring. Larvae climb the plant and feed on foliage. The clover leaf weevil is nocturnal, feeding at night, and hiding during the day in the crown of the plant and in the debris on the ground. On dark, cloudy days, however, they may also feed throughout the day. They become full grown in late May and June, when they pupate in the soil debris. Adults emerge from May to July and feed for a short period of time before becoming inactive. Beetles resume activity in the fall and lay eggs.



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Clover leaf weevils at base of alfalfa plants

Injury

Adult clover leaf weevils do not generally cause economic damage to alfalfa. Injury caused by larvae is similar to that caused by the alfalfa weevil. Injury may occur very early in the spring, prior to when alfalfa weevils are noticed. Most feeding by larvae occurs in late March and the first 3 weeks of April. Larvae skeletonize the leaves of the plants, leaving them ragged and in some cases almost completely defoliating the whole plant. The effect is the same as though newly forming leaves were removed from the plant each day. In some cases the plants may die. Under normal growing conditions, however, the clover usually recovers from injury when weevil numbers are moderate. During a cool spring when growing conditions are unfavorable, this defoliation may seriously stunt clover growth. Damage is usually most severe in fields with a heavy residue cover. The larvae feed throughout the day beneath residue, and the plants, shaded from the sun, do not have an opportunity to grow away from the damage.



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Severe feeding by clover leaf weevil

Scouting Procedure

To monitor fields for clover leaf weevil, examine the crowns of 20 plants in five different areas of the field.

Management

An insecticide treatment may be warranted if five or more larvae per crown are found and leaf damage is evident during early to mid-April.



Clover leaf weevil killed by a fungal disease

Late March or early April insecticide treatments will prevent most damage since most larval feeding occurs during that time. However, insecticide applications are rarely needed. Clover leaf weevil populations usually stay well below their economic injury level. They are very susceptible to a fungal disease which favors cool and wet springs and can spread rapidly through a weevil population. Infected larvae turn yellow and then brown. Be sure to examine larvae when scouting to check for diseased clover leaf weevils.

Clover leaf weevil densities may decline rapidly after diseased larvae are observed in the field.

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