

Alfalfa Looper

Autographa californica

<i>Order:</i>	Lepidoptera (moths and butterflies)
<i>Family:</i>	Noctuidae (noctuid moths)
<i>Metamorphosis:</i>	Complete (egg-larva-pupa-adult)
<i>Mouthparts:</i>	Chewing in larvae and siphoning in adults



Larva of the **ALFALFA LOOPER**, *Autographa californica*, see color print, Fig. 3, on publication B-1013.

Alfalfa loopers are found throughout North America and are native to this area. They feed on the foliage of a variety of host plants. Alfalfa is a preferred host, and this causes the greatest management concern.

Body Form

Eggs: Eggs are pale yellow, turning darker as hatching approaches. They are rounded and have ridges running from their base to their top.

Larvae: Larvae vary in color, but on alfalfa they are usually light green. There is usually a distinct white stripe running down the midline of the back from the base of the head capsule to the end of the abdomen. A white stripe also appears on each side of the abdomen and thorax. There are only three pairs of prolegs – one anal pair and two pairs along the length of the abdomen. Using its true legs and prolegs, the larvae move in a looping fashion. Mature larvae are approximately 1 inch in length.

Pupae: Pupae are enclosed in a silken web spun by mature larvae. The pupa itself is brown with no protrusions extending from the pupal case. They are found attached to leaves.

Adults: Moths have a wingspan of approximately 1¾ inch. When at rest, the wings are folded over the abdomen. The forewing is gray to gray-brown with white and silver markings. A distinct tear-shaped light marking is present in the middle of the forewings.

Life History

Alfalfa loopers overwinter as pupae in plant debris. In spring they emerge and mate, and females lay eggs on various host plants including alfalfa. Eggs hatch in approximately one week. Larvae are foliage feeders and are usually detected in alfalfa from June through September. In about three to four weeks, they pupate within a silken cocoon spun between leaves matted together with silk. Adults will emerge, mate, and produce second-generation offspring. Several generations can be produced, depending on the weather.

Plant Injury

Adults feed on nectar only. When larvae first hatch, they skeletonize the leaves near the hatch site. As they mature, they disperse within the plant vegetation. These larvae cut into leaves from the leaf margin and may continue feeding until entire leaves are consumed. Several larval infestations may result in considerable loss in foliage.

Management

Natural control is often sufficient to keep larval populations in check. Various hymenopterous parasites kill eggs and larvae. Other predators such as the big-eyed bugs, spiders, damsel bugs, and lacewings feed on eggs and small larvae. Larvae are also susceptible to insect-specific viruses that occur naturally. Occasionally, an outbreak may justify the use of insecticides. The inspection of foliage and detection of larvae will assist in determining if feeding activity is sufficient to warrant the use of insecticide. A sweep net is commonly used to detect the first occurrence of larvae, and visual inspection of foliage allows assessment of damage.

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