

CABBAGE LOOPER *Lepidoptera: Noctuidae Trichoplusia ni*

DESCRIPTION

The forewings of cabbage looper **moths** are sandy-brown with a white "figure-8-shaped" mark. The inner loop of the mark is open and appears to be bowl-shaped. The wingspan is 25 to 30 mm. **Larvae** are 25 mm long and pale green. Larvae have three pairs of legs on the thorax and three pairs of prolegs on the abdomen. **Eggs** appear the same as those of the alfalfa looper. In the **celery looper**, *Anagrapha falcifera*, the forewings are gray-brown with a rusty-brown area and a silver mark shaped like a spoon. Wing margins do not appear scalloped as they do in the cabbage and alfalfa loopers. Loopers are distinguished from cutworms and armyworms by their "looping" behavior when moving and by having only three pairs of abdominal prolegs (cutworms and armyworms have four pairs).

ECONOMIC IMPORTANCE

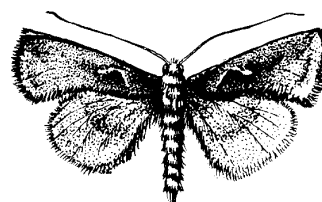
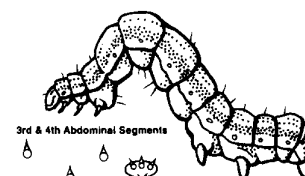
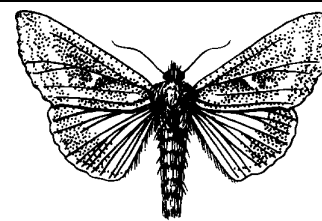
Larvae eat ragged-edged holes in leaves and in heavy infestations the plants may be completely defoliated. The major problem caused by cabbage looper larvae and pupae is contamination and considerable losses are attributed to this pest in processing plants. These loopers feed on peas, sugarbeets, lettuce, celery, cole crops, mint, and weeds.

DISTRIBUTION AND LIFE HISTORY

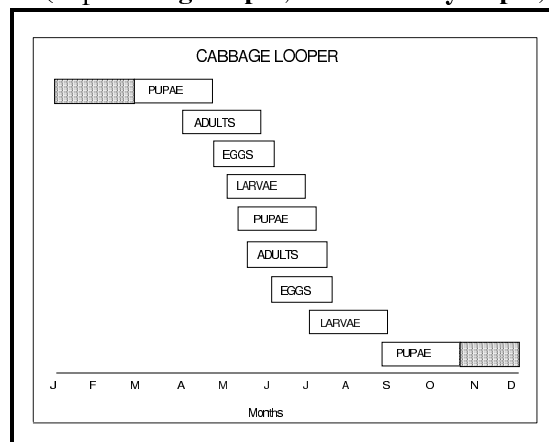
These loopers are found throughout the western United States and parts of Canada, but occur sporadically in the northwest. The cabbage looper overwinters as a pupa in the soil or in trash near the base of host plants. Adults emerge in May and deposit eggs singly on leaves of plants from late May to June. Eggs hatch in about a week and larvae feed for three or four weeks, then form a pupal cocoon attached to leaves or in trash. Adults from the second generation lay eggs as before and larvae become damaging in August. This generation causes the most damage. Celery loopers are most damaging during late July and early August.

MANAGEMENT AND CONTROL

Looper populations are usually held in check by diseases and natural enemies. A polyhedral virus may effectively control large infestations, killing up



(Top: cabbage looper, Bottom: celery looper)



to 95% of the larvae. Using *Bacillus thuringiensis kurstaki* (Btk) has reduced infestations of cabbage looper on some crops. Fields should be sampled prior to treatment to establish the need for control. Insecticides are most effective against small larvae. A sweep net can be used to sample plants for large larvae (15 to 20 mm). Samples should be taken in different areas of the field in groups of 10 sweeps per site (take at least 100 sweeps to estimate the population). Pheromone traps may be used to monitor adult emergence. Insecticides should be applied about 10 days after the first moths are caught.