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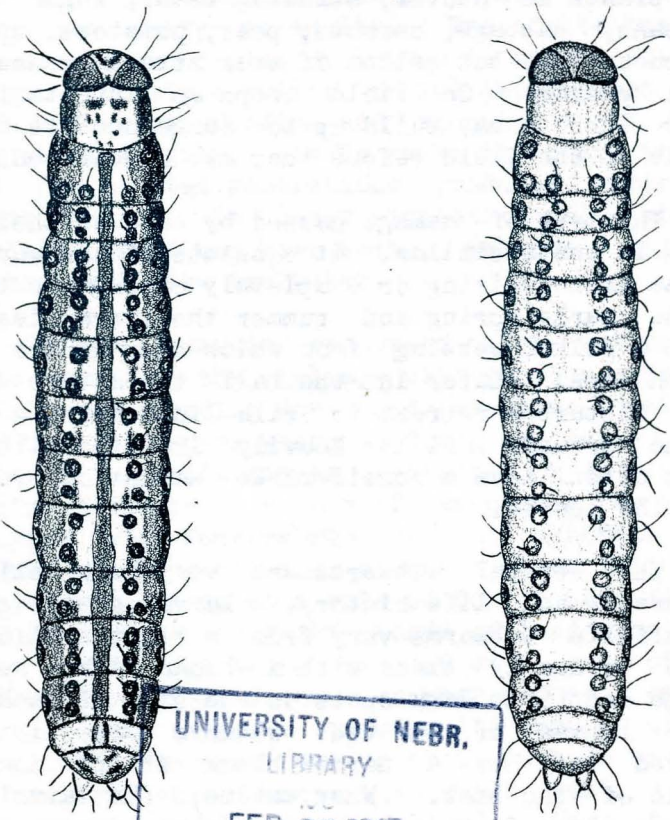
Webworms



Beet Webworm

Garden Webworm

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Cooperative Extension Work in Agriculture and Home Economics University of Nebraska College of Agriculture, and the United States Department of Agriculture cooperating, W. H. Brokaw, Director, Lincoln.

WEBWORMS

Martin H. Muma, Extension Entomologist

The garden webworm , alfalfa webworm , and beet webworm all occur in Nebraska and occasionally cause serious damage to field and garden crops. They are all general feeders that may cause injury to such plants as clover, alfalfa, beans, sugar beets, soybeans, cabbage, carrots, peas, potatoes, spinach and cucurbits, but seldom if ever attack grasses and small grains. On field crops an infestation of these insects may build up to large numbers in the middle of the field before they are discovered.

The type of damage caused by each of these insects is quite similar. It consists of the worms or larvae skeletonizing or completely eating the leaves. In the early spring and summer the larvae feed beneath a silken webbing from which they derive their common name. Later in the fall the mature worms when disturbed retreat to silk-lined burrows on or in the ground. Fields heavily infested with webworms often have a considerable amount of webbing over the leaves.

The several webworms are very much alike in appearance and life history. Larvae of the garden and alfalfa webworms vary from a light yellowish-green to nearly black with a broad light central stripe and three dark spots on the side of each segment; larvae of the beet webworm are similarly colored but have a narrow black stripe down the middle of the back. When mature, the larval webworms measure from one to one and one-quarter inches in length. Adult moths of webworms vary in color

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1. Loxostege similalis Guenee
2. Loxostege commixtalis Walker
3. Loxostege sticticalis Linne

from the light brown spotted moth of the garden and alfalfa webworm to the greyish-brown spotted and lined moth of the beet webworm. The adults vary in size from three-quarters of an inch for the garden webworm to one and one-quarter inches for the alfalfa and beet webworm.

Mature webworm larvae pass the winter in the silk-lined burrows or cases, pupate in the late spring and emerge as adults. The adults lay their eggs on the under side of leaves in masses of two to fifty. The light yellow to yellowish-green larvae hatch and begin feeding and spinning their webs to complete the cycle. In Nebraska there are probably only one or two generations produced during the summer months. In heavy infestations, when all available food has been eaten, webworms sometimes migrate much like armyworms.

Control measures recommended for webworms include spraying the foliage with various arsenicals to kill the feeding worms and erecting barriers to stop the migrating worms. Young or newly seeded fields of alfalfa may be protected by dusting with calcium arsenate at a rate of ten pounds per acre or spraying with four pounds of lead arsenate to one hundred gallons of water at one hundred gallons per acre. Paris green at a rate of four pounds to fifty gallons of water or eight pounds of lead arsenate to fifty gallons of water applied at a rate of fifty gallons per acre has been recommended as a spray on sugar beets. Garden crops may be sprayed with six pounds of a five per cent rotenone dust to each one hundred gallons of water (in small amounts about eight teaspoonfuls to the gallon). Care should be taken to wet the leaves thoroughly. On waxy-leaved plants such as cabbage, two pounds of flour per one hundred gallons of water should be added to make the spray stick to the leaves. Lead arsenate at a rate of four pounds to one hundred gallons of water (in

small amounts about six teaspoonfuls to the gallon) may be used for some garden crops but should not be sprayed on cauliflower, broccoli, brussel sprouts, collards, and other plants the sprayed parts of which will be eaten.

The new insecticide, DDT, has shown some promise in the control of certain webworms, but due to the toxic residues left on forage and food crops is not recommended at the present time. Further experimental work may prove it to be of value.

Migrating worms in late summer and early fall may be stopped and trapped in a plow furrow. The worms may then be killed by dragging a log or similar object back and forth in the furrow.

Clean culture of field margins, keeping down weeds such as pigweeds and lamb's quarters is an effective supplementary control measure. Many eggs are laid on such weeds and the young webworms develop there, later migrating into the fields and gardens.