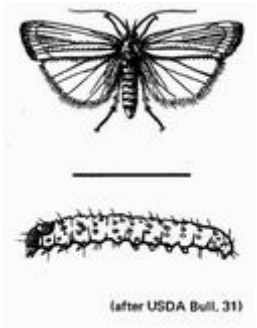
Sugarbeets XX-13-14

Webworms

Gary L. Hein



Webworm

Three species of webworms (sugarbeet, alfalfa, and garden webworms) can be found to feed on sugarbeet. Their occurrence is not very common, but when present in large numbers the damage can be very severe.

Identification (life cycle and seasonal history)

Webworms overwinter as mature larvae or pupae in the soil. Adult moths will emerge in May and begin laying eggs on sugarbeet. Eggs are laid singly or in small groups on the underside of leaves. Lambsquarters and Russian thistle are especially attractive for egg laying. There are usually two generations of webworms with the first generation larval feeding period in June and the second in late July or August.

The early instar beet webworms, *Loxostege sticticalis,* are light in color and feed within webs near the base of the leaves. Later instars become olive green and have a dark stripe down the center of the back and three circular spots on each segment on either side of the center stripe. From each of these spots projects a long hair. The alfalfa webworm, *Loxostege commixtalis,* has similar spots with protruding hairs, but the stripe on the back is broad, light in color, and covering nearly the entire area between the spots. Both the beet and the alfalfa webworms can reach about 1 1/2 inches in length. The garden webworm, *Achyra rantalis,* is the least common of the webworms and only reaches a maximum length of 1 inch. It has similar markings to the other webworms.

Plant Damage and Response

When webworm larvae hatch they feed on the lower surface of the leaves. These early instars cannot feed completely through the leaves, resulting in a pitting on the lower leaf surface. Larval consumption rates in later instars increase dramatically and the larvae begin to feed completely through the leaves, causing damage to increase rapidly. Substantial defoliation can occur in a short time. This increase in defoliation is especially striking because the early instar feeding often goes unnoticed. Heavy infestations can

result in only the midveins remaining on the plant. Also, heavy feeding can result in the growing point being damaged. The greatest potential for damage will occur during the second generation, because of good survival and reproduction of the first generation.

Management Approaches

Weed control in sugarbeet fields can be an important factor in the occurrence of webworm populations as female webworms are attracted to weeds, such as lambsquarters or Russian thistle, for egg laying. Detection of developing populations can lead to prevention of the rapid defoliation of sugarbeet by the larger larvae. Scouting for the early signs of an infestation is important. Insecticide control would be warranted if significant defoliation has occurred and larvae are still actively feeding.

Product List for Webworms:

Insecticide	**Product per Acre**	**Preharvest Interval, remarks**
Asana XL[R]	5.8-9.6 oz/A	Do not exceed 0.15 lb ai/A per season; PHI 21 days; REI 12 hours.
Biobit, Dipel (*B. thuringiensis-kurstaki*, multiple formulations)	See label for rates	No harvest restrictions; REI 4 hrs.
Methyl 4EC[R] (methyl parathion)	0.5-0.75 pts./A	PHI 20 days; REI 5 days.
Lannate WSP[R], LV[R]	WSP: 0.25-1.0 lbs./A LV: 0.75-3.0 pts./A	Do not apply within 7 days of harvest; REI 48 hrs.
chlorpyrifos 4E[1] (Lorsban plus generics)	1.0-2.0 pt./A	PHI 30 days; REI 24 hrs.
Sevin[1] (carbaryl, multiple formulations)	See label for rates.	PHI 28 days; REI 12 hrs.
XenTari (*B. thuringiensis-aizawai*)	0.5=1.0 lb/A	No harvest restrictions; REI 4 hrs.

[R]Restricted use pesticide [1]Labeled for chemigation.

Categories: Insects, Sugarbeets, Webworms

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