

4/ ENTOMOLOGY NO. 12—Revised 1976
JOHN LOFGRENUNIVERSITY OF MINNESOTA
DOCUMENTS**ARMYWORMS**

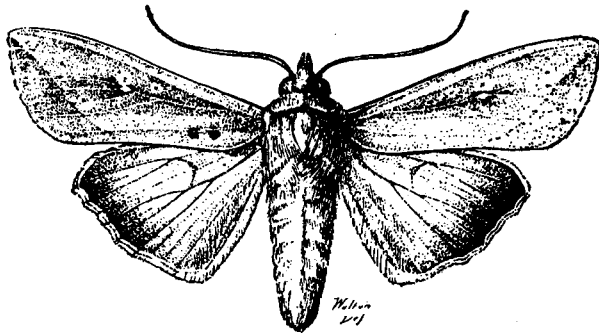
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WHAT THEY ARE

The term "armyworms" is sometimes incorrectly applied to any large group of caterpillars. However, the true armyworm is a distinct species of insect that belongs to the cutworm family. It is primarily a pest of grasses, small grain, and corn but also will feed on a wide variety of plants.

The armyworm is the larval stage, or caterpillar, of a moth. The moth is a heavy bodied, light brown "miller" that has a conspicuous white or silvery spot about the size of a pinhead on each front wing.



The armyworm moth

Larvae, or armyworms, grow to 1 1/2 - 2 inches long and vary in color from a light gray-green to a dark gray-brown. Along the outer side of each leg, near the middle part of the body, is a dark band. On the body is a series of longitudinal stripes arranged as follows:

1. A thin, white, broken line down the middle of the back.
2. A wide, dark, mottled stripe halfway down the side.
3. A pale orange stripe with white border.
4. Next, a brownish mottled stripe.
5. Slightly above the legs, another pale orange stripe with border.

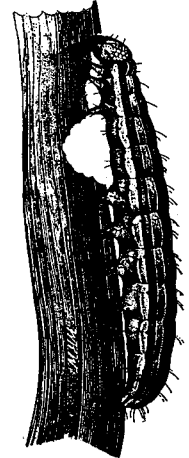
HOW THEY LIVE

Moths lay eggs in rows on leaves of lodged grasses and small grain. A favorite place for egg laying is grain or grass that was flattened by hail or wind. In 7-10 days, the eggs hatch into small worms or larvae. These young armyworms feed in areas where they are hatched until they are full grown or run out of food. If the food is all consumed, the worms often start to move. They may then swarm in huge "armies," eating and destroying other crops as they crawl.

Feeding and moving are done at night or on cloudy days. During daylight, armyworms hide under vegetation, in cracks, or by burrowing into loose soil. As the worms grow, they eat more and more food. Therefore, infestations are often unnoticed until worms are nearly full grown and almost ready to stop feeding.

When full grown, armyworms burrow into the soil and change to dark reddish-brown pupae. About 2 weeks later adults or moths emerge from pupal cases to mate and lay eggs for the next generation.

Even though this insect may overwinter in Minnesota, our most severe and costly infestations probably result from moth flights from the south. The moths are strong fliers. Heavy infestations in southern states produce large numbers of moths that may fly in on southerly winds. If weather, egg laying, and food conditions become favorable here, outbreaks can result.



Armyworm feeding on corn

HOW TO CONTROL THEM

It is extremely important to control armyworms while they are small and before extensive damage is done. Killing worms after they are full grown and the crop is ruined is just a matter of revenge. An average of five worms per square foot in small grain economically justifies chemical control. Usually, it pays to control a 10-percent infestation in corn; that is, when at least 10 percent of the corn plants are infested.

You may use toxaphene, malathion, carbaryl (Sevin), or trichlorfon (Dylox) at the following rates per acre:

toxaphene—1½ to 2 pounds active ingredient per acre (2 to 2½ pints of 6 pounds per gallon EC)

malathion—1 pound active ingredient per acre (1½ pints of 5 pounds per gallon EC)

carbaryl—1½ to 2 pounds active ingredient per acre (2 to 2½ pounds of Sevin 80 WP) corn only

trichlorfon—½ to 1 pound active ingredient per acre (10 to 20 ounces of Dylox 80 SP)

Apply sprays with ground or aerial equipment in such a way that good uniform coverage results. When worms are moving from small grain or grass into corn, flax, or soybeans, spray a couple of swaths ahead of the infestation in the direction of movement in order to form a barrier strip. Infestations in corn frequently start in grassy weeds in the fields.

IMPORTANT—PRECAUTIONS AND LIMITATIONS

All insecticides must be handled with caution. Avoid spilling chemicals on the skin or clothing. If insecticides accidentally touch the skin, wash immediately with plenty of soap and water. If clothing becomes contaminated, remove it and bathe thoroughly. At the end of a day's spraying, bathe and change to clean clothing.

When crops are treated, excessive chemical residues must not remain at harvest. Do not overtreat—use recommended rates. If you use toxaphene, do not use treated straw and crop residues for bedding or feed for milk cows or meat animals being finished for slaughter. Carbaryl is not registered for use on small grains.

Minimum waiting periods between treatment and harvest, feeding, or ensiling for corn and small grains

Insecticide	Waiting periods	
	Small grain	Corn
toxaphene	No time limitation for grain; do not feed straw	No time limitation for corn grain; do not feed treated stalks, leaves, and husks
malathion	7 days	5 days
carbaryl (Sevin)	Do not use on small grain	No time limitations
trichlorfon (Dylox)	21 days and not more than 3 applications	No time limitations

Follow all safety directions on labels.

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