

Armyworms in Corn

Ric Bessin, Extension Specialist

Entfact-109

The armyworm, or true armyworm, is a common early season pest that can cause occasional losses in corn and should be monitored for in the spring. Infestations usually first develop in fields of small grains or in other grass cover crops. In conventional tillage systems, partially-grown larvae can migrate into corn fields from grassy waterways or wheat fields, damage is usually first noticeable around the field margins adjacent to these areas. The name armyworm derives from its behavior of migrating in large numbers into fields similar to invading armies. In no-till or reduced tillage systems, infestation may cover the entire field. In these systems, eggs may be laid on grasses within the field prior to planting and herbicides may force armyworms to feed on corn as the weeds or cover crop dies. Cool, wet, spring weather usually favors armyworm development.

The full-grown 1-1/2 inch armyworm has a greenish brown body with a thin stripe down the center and two orange stripes along each side. The head is brown with dark honeycombed markings. Eggs are small, greenish-white, globular, and laid in clusters of 25 or more on the leaves of grasses. The adult moth is tan with a tiny white spot in the center of the forewings. The moth has a wingspan of about 1-3/4 inches.

Armyworms overwinter as partially grown larvae in grasses or small grain fields. When warm spring temperatures return, armyworm feeding resumes. Armyworms may move onto corn during this period. When feeding complete, larvae pupate just below the surface of the soil. Adults of the first generation emerge in April and May and feed on nectar for 7 to 10 days before beginning to lay eggs. There are three to four generations per year in Kentucky.

Armyworms usually feed at night and damage corn by chewing leaves. They prefer to feed on the succulent leaves in the whorl first. Feeding is

usually confined to leaf margins, but occasionally they may strip the entire plant leaving only the midrib of the leaves. During the day, armyworms are found in the soil or underneath ground cover. Ragged leaf feeding in the spring and early summer is evidence of armyworm feeding. Corn can usually recover from light to moderate feeding by armyworm without significant yield loss. However, severe damage, particularly if the growing bud is injured, can cause significant loss in yield.



Figure 1. Armyworm feed on leaf margins leaving the leaf midrib behind.

Monitoring

Treatment recommendations are based on scouting. Scouting is used to determine if armyworms are present (identify hot spots) and to evaluate if they are worth treating. If the characteristic armyworm damage is observed while scouting, look on the ground for armyworms

or their black pepper-like droppings littering the ground. Remember, during the day, armyworms hide in soil cracks or under clods and crop residues. Occasionally they may be found in the whorl of the plant during the day. Armyworms usually feed only at night. To sample for armyworms, examine 20 consecutive plants in each of at least 5 random locations in the field. Note the number of plants with the characteristic damage and the size of the larvae.

In conventional tillage, infestations usually begin around the field margins adjacent to small grains or grassy strips. These areas should be scouted first. If armyworms are present, then determine how far the infestation extends into the field. Entire fields are rarely infested and armyworms can be controlled by treating just a portion of the field.

When scouting for armyworms, look on the armyworms for parasitic eggs. These small, oval, yellowish eggs are usually located just behind the head of the larva. These are eggs of a fly parasite that will kill the larva. These parasites and other beneficial organisms usually keep armyworms from reaching damaging levels. Avoid treating with insecticides when large numbers of parasitized larvae are present.

Before deciding whether or not to treat for armyworms with an insecticide there are a few things to consider. First, what sizes are the armyworms. If the armyworms are longer than about 1-1/4 inch they have completed most of their feeding. Controlling larvae of this size is not profitable because the damage is already done.

Control actions in corn are recommended when armyworms average between 1/2 and 3/4 inches and the entire field averages 35% infested plants or 50% or more defoliation is seen on damaged plants. Pheromone traps are available to monitor adult armyworm activity. See ENT-54, Vendors of Microbial and Botanical Insecticides and Insect Monitoring Devices, for a list of vendors of the armyworm lures. Although armyworms can be captured in the small cardboard wing traps, the Texas wire cone trap (see ENTFACT-010, Plans and Parts List for the "Texas" Style Cone Trap for Monitoring Certain Insect Pests) is recommended. Armyworm moths are common throughout the season and are frequently captured in pheromone traps baited for other moth species.

Control

Preventive treatments for armyworms are not justified. Although it may appear as if the preventive treatments are very effective and some fields in Kentucky that have significant armyworm infestations that will require treatment, in fact the likelihood that a particular field will have an outbreak of armyworms is still very small and are usually associated with no-till into grassy cover crops. Keep in mind that majority of fields will have some armyworms in most years, but the chance of encountering a infestation that economically justifies the cost of treatment is small on a field by field basis. Only rescue treatments are recommended for armyworms in corn. Spot treatments can usually provide effective control of field-margin infestations.

Revised: 11/19