

Cutworms (Order: Lepidoptera, Family: Noctuidae)

Black (*Agrotis ipsilon* (Hufnagel))

Granulate (*Agrotis subterranea* (Fabricius))

Description:

Adult: The moths of both cutworm species described here are fairly large, the black having a 40-55 mm wingspan and the granulate a 31-43 mm wingspan. The forewing of the black cutworm is dark brown throughout, and that of the granulate is gray to light brown with a distinct double spot (one small round, the other bean-shaped) located centrally.

Immature stages: Both species have small (<1mm in length) white eggs that are oviposited on the plant foliage. The granulate oviposits either singly or in small clusters and the black in clusters. There are usually six larval instars for each species, but this can vary from 5 to 9. Both have dark brown pupae that occur 3-12 cm below the soil surface.



Granulate cutworm adult and larva.

Biology:

Life cycle: The development from egg to adult is 35-66 days for black and 35-57 days for granulate cutworm. The duration of the larval (feeding) stages is 20-40 days for black and 22-32 days for granulate cutworm, so if detected in the field at planting, they can cause damage for the entire seedling stage of the crop.

Seasonal distribution: Both cutworm species likely have four generations per year in Georgia, and moths are present from overwintering emergence in March until October (overlapping generations).

Damage to Crop: These cutworms, like their name indicates, cut seedling plants off at the soil surface. This early season damage is the most important, because it causes direct stand loss and often results in reseedling or resetting transplants. However, cutworms can occur later in the season, feeding on foliage and occasionally on fruit.



Black cutworm damage, cutting off plant at soil line.

Management: If the season that one is planting in coincides with cutworm activity annually, then preventative or curative actions can be taken. Baits, insecticide treated bran-molasses mixtures, are very effective when broadcast over the soil surface at the time of seeding or transplant.

Sprays of soil treatments are also used at the first sign of cutworm activity, but applications are more effective if applied late in the evening or at night when cutworms are active. Cutworms are associated with weeds and also tend to be greater in wet spots in the field or along field edges. There are some natural enemies of cutworm, but they often need to be augmented and kept in moist conditions to be effective, such as the addition of entomopathogenic nematodes. Monitoring for adult flights can be done with pheromone traps in the spring and light traps in the summer and fall. Scouting for larvae should be done at night or early in the morning when larvae are still active on the soil surface.