

# Discover the Fauna of Our Campus

## **Cotton bollworm (*Helicoverpa armigera*)**

Order: Lepidoptera (Butterflies and Moths)

Family: Noctuidae (Owlet Moths)

Genus: *Helicoverpa*

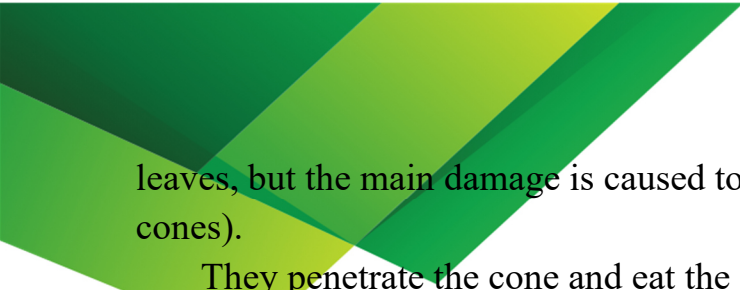
Species: *Helicoverpa armigera* (Cotton Bollworm və ya Corn Earworm)

The cotton bollworm (*Helicoverpa armigera*) is one of the most damaging pests of agriculture. It is known as a “polyphagous” (feeding on many plants) species in the world and can attack more than 200 plant species. In Azerbaijan, it causes serious damage to cotton, vegetable and corn crops. The development of the cotton bollworm consists of four stages: egg, caterpillar, pupa and butterfly. Its wings are



30-40 mm when open. The front wings are orange-brown in females, and grayish-green in males. The hind wings are lighter in color, with a wide black stripe on the edges. Its color is very variable (it can be green, yellowish, pink or dark brown). There are longitudinal stripes and small prickly bumps along its body. It reaches a length of 35-40 mm. This pest has a high reproductive capacity. A female moth can lay from 500 to 3000 eggs during its life. The moth overwinters in the pupal stage at a depth of

4-10 cm in the soil. In Azerbaijani conditions, the cotton moth produces 3-4 generations per year. The first generation usually develops on weeds or cereals, and subsequent generations move directly to cotton and other cultivated plants. Butterflies fly mainly in the evening and at night, feeding on nectar. The most dangerous stage of the cotton moth is its caterpillar stage. Caterpillars first gnaw



leaves, but the main damage is caused to the generative organs (buds, flowers and cones).

They penetrate the cone and eat the fiber and seeds. One caterpillar can destroy 10-15 buds or cones during its development. In corn, it eats the grains, and in tomatoes, it hollows out the inside of the fruit, causing it to rot.

The fight against cotton bollworm must be carried out in a comprehensive manner. Plowing the soil in the fall causes the overwintering pupae to emerge to the surface of the soil and die from the cold. Weeds that create a favorable environment for butterflies to lay eggs should be removed. Loosening the soil during the growing season destroys some of the pupae. It is a beneficial insect used against the eggs of the cotton bollworm. It is a parasite that paralyzes the caterpillars of the cotton bollworm. When the number of caterpillars reaches 5-10 per 100 plants (economic damage threshold), insecticides are used.

Preparations containing Indoxacarb, Chlorantraniliprole or Emamectin benzoate are considered more effective in modern times. Spraying should be carried out before the caterpillars enter the nut or fruit, because the drug does not affect the caterpillars that have entered. Cotton bollworm has the ability to acquire resistance to many pesticides. For this reason, it is not recommended to use the same group of drugs in succession. If the fight is not carried out in a timely manner, productivity can decrease by 50-70%.

