

Discover the Fauna of Our

Kingdom: Animals (Animalia)
Phylum: Arthropods (Arthropoda)
Class: Insects (Insecta)
Order: Lepidoptera
Family: Noctuidae (Owlet moths)
Genus: *Helicoverpa*
Species: Cotton bollworm (*Helicoverpa armigera*)

The Cotton bollworm (*Helicoverpa armigera*) is one of the most economically damaging agricultural pests in the world. It is considered a "highly polyphagous" pest because it attacks more than 120 plant species, including cotton, corn, tomatoes, tobacco, beans, and sunflowers.

Physical Appearance:

With wings spread, it measures 30–40 mm. Forewings are orange-brown in females and grayish-green in males. The hindwings are lighter in color with a broad, dark band along the edges. The color of the caterpillars can vary significantly (green, yellow, pink, or dark brown). They have longitudinal wavy stripes along the sides of their bodies and small black warts with hairs. The cotton bollworm is capable of reproducing at an incredibly fast rate.

Life Cycle and Reproduction:

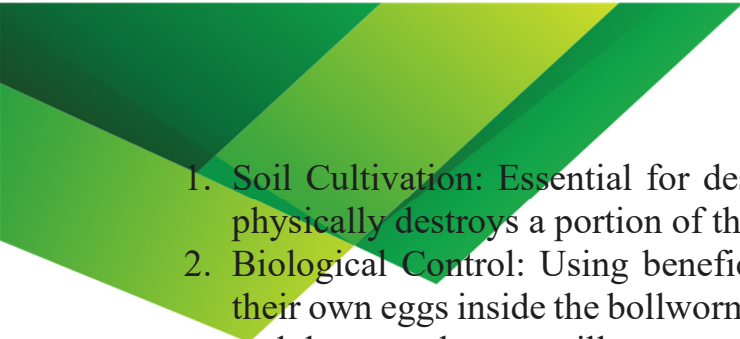
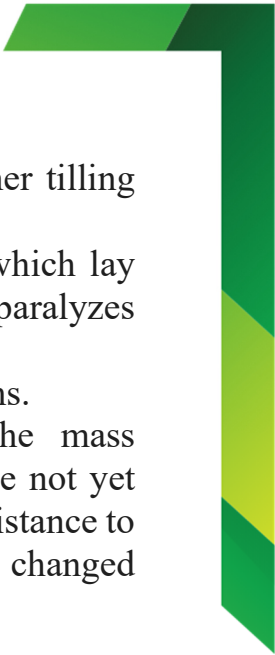
A single female moth can lay an average of 500–1,500 eggs, sometimes up to 3,000, during her lifetime. Eggs are laid individually on the youngest parts of the plant (buds, flowers, leaf tips). Depending on the climate (for example, in Azerbaijan), it can produce 3–4 generations per year. It spends the winter in the pupal stage at a depth of 4–10 cm in the soil.

Agricultural Damage:

The most dangerous characteristic of this pest is its habit of feeding on the generative organs (fruit) of the plant. Caterpillars bore into cotton bolls, eating the fibers and seeds. A single caterpillar can damage 8–12 bolls during its development. In corn, it eats the kernels starting from the top of the cob. By gnawing and emptying the inside of fruits, it causes them to rot and fall off.

Control Measures:

An integrated protection system must be used to combat the cotton bollworm:

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1. **Soil Cultivation:** Essential for destroying pupae in the soil. Summer tilling physically destroys a portion of the pupae.
 2. **Biological Control:** Using beneficial insects like *Trichogramma*, which lay their own eggs inside the bollworm's eggs, or *Bracon*, a parasite that paralyzes and destroys the caterpillars.
 3. **Monitoring:** Pheromone traps are used to track the flight of the moths.
 4. **Chemical Control:** Modern insecticides are sprayed during the mass emergence of caterpillars (especially while they are small and have not yet entered the fruit). Because the cotton bollworm quickly develops resistance to chemicals, the composition of the preparations used must be changed periodically.

