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MORPHOLOGY, BIOLOGY AND MEASURES OF COTTON BOLLWORM

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Abstract

The article describes the morphology, biology, damage and control measures of the main pests that currently damage cotton.

Keywords: Heliotis armigera, pest, cotton, egg, larvae, damage, chemical fight, biological effectiveness, economical effectiveness.

Introduction

Cotton is one of the most infested crops with pests. Professor: Yaxontov V.V. consisting of 772 species of invertebrates feeding on cotton, compiled an incomplete list of fauna of the whole world and gave it to them in 1962, of which 751 species are insects. VV Yakhontov identified 219 species of cotton in Uzbekistan. Very few of these species, 10 species, always cause serious damage, the rest are secondary, and some of the pests that can cause serious damage to cotton in some years when conditions are favorable are autumn nightshade, cotton nightshade, and so on.

One of the insects that damage cotton is this caterpillar. In the northern regions of Central Asia, depending on weather conditions, produces 3-4 generations a year, and in the southern regions - 4-5 generations..

In autumn, the caterpillars, which feed on plants, also spend the winter at a depth of 10-15 cm near the plants. The first adult butterflies appear in late April-early May, according to observations by the Central Asian Plant Protection Station (Glushenkov). wintering cocoon develop well when the temperature is not lower than 15 ° C. Butterflies lay eggs at night when the air temperature is not lower than 200, 5 days after cocoon; many begin to lay eggs when the temperature is not below 23 °. They lay their eggs one by one on the young leaves at the ends of plant stems and branches, often on their tops, sometimes on the fruiting organs of plants. Because the caterpillars are swarming, they sometimes eat each other (cannibalism). Only in some cases does a butterfly lay 2 and 3 eggs together. Each butterfly lays 400-600 eggs in its lifetime, and an average of 556 eggs

(Sosnina). Some female butterflies can lay up to 3,000 eggs, depending on the amount and quality of nectar they receive from plants and weather conditions (Yevstropov)..
During the flowering period of cotton, butterflies are adequately supplied with food. In the spring, when nectar rich weed multiply, this pet lay egg a lot. Butterflies usually live 11 to 27 days, with a maximum of 34 days; The period of laying their eggs lasts at least 20 days. The larvae feed on the part of the plant where they hatched first, and then try to get into the stems, flowers and stalks. This pest is called a boll worm because it damages the cotton buds, but it does more damage to the cotton buds. While the worms often enter from the lower half of the cocoon, the larvae enter mainly through the flower sides or petals of the flower crown. The most ferocious cousin of the caterpillar in Central Asia is a tiny pest called a bracon that gives 10 or more joints during the summer. In some years, this parasite helps people a lot in the fight against the caterpillar.
The cotton nightshade eggs of the caterpillar are lost in large numbers by an ovipositor named Trichogramma (**Trichogramma evanescens Bestm**). In the southern regions of Uzbekistan and Turkmenistan, many bee larvae are transported by a bee named **Eumenes dimidiatipenis Sauss** to feed their young**.**
Our experiment was conducted in the following scheme on a 10-hectare field area of the farm "Ahmadjo`ra sahovati" of Andijan region, Andijan district, Sh.Yulduzi massif.
The total area of the experiment was 1440 m2. 100 plants were selected for calculation from each variant, and phenological observations were made from this plant every 10 days. In the control option, no caterpillar control was used. The biological effectiveness of the control of cotton bollworm in our experimental field (experimentally) gave the following results. At 10.07, before using the tools, in the experimental variant, there were 38 cottonseed eggs per 100 bushes and 12.0 worms. By July 13, 4 eggs and 1.6 worms were left in the experimental variant. In the experimental variant, the biological efficiency of eggs was 89.6% and that of worms was 86.6%.. In conclusion, timely and high-quality control of the cotton boom will bring good results.

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