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Tobacco Whitefly (Bemisia Tabaci Genn.) And Its Damage to Crops

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ABSTRACT

The article presents data on the morphology, ecology, biology of the tobacco whitefly (Bemisia tabaci Genn.). Issues of harmfulness

KEYWORDS: *tobacco whitefly, morphology, ecology, biology, prevalence..*

Introduction. The tobacco whitefly (Bemisia tabaci Genn.) is common in temperate countries and is considered a very difficult task to control.

Insects of the family Aleyrodidae (whiteflies) in the world are divided into 126 families, the existence of 1156 species is recorded in the sources, which indicates the great importance of their morphological aspect in separating species from each other [1,2,3,4].

This quarantine pest is also widely distributed in open ground and greenhouses in Uzbekistan, its bioecology and control methods are little studied.

Research methods. Entomological reports and observations were carried out on the basis of the methods of V. Yakhontov, G.Ya. Bei-Bienko, A.A. Zakhvatkin, S.A. Muradov, and the density of pests Sh.T. Khojaev. The level of damage caused by insects was determined by the method of V.I. Tansky.

Research results and their analysis. The emergence of a large number of whitefly species in agrobiocenoses, the increase in their harmfulness to agricultural crops, their adaptability to crop types, the low activity of their entomophages in the biocenosis, the use of various chemicals in pest control, and the creation of environmentally friendly pest control measures are considered urgent problems.

Tobacco whitefly (Bemisia tabaci Genn.) is a quarantine species belonging to the group of homoptera, the family of white-winged (Aleyrodidae), is a polyphagous pest that infects more than 200 plants belonging to 73 families. It mainly damages tobacco, vegetables, gourds, industrial crops, ornamental and medicinal plants, and many weeds. It is also found in fruit, citrus, berry, shrub and forest trees.

The tobacco whitefly is an immature, bisexual, overwintering egg, larva, and pupa stage. During the growing season gives from 8 to 15 generations [5].

Adult color is yellow, antennae and legs are light yellow, wings are white, without spots. Length 1-1.5 mm. In recent years, the tobacco whitefly (Bemisia tabaci Genn.) has become a very common insect on tobacco, cotton and vegetable crops in our republic. The difference from other types of pest is that there are several folds in the anus at the end of the abdomen.

According to scientific sources, the insect destroys up to 50% of the tobacco crop, 45-55% of the cotton crop, 60-75% of the vegetable crop.

The tobacco whitefly damages the plant only at the larval stage. With an increase in air temperature,

the tobacco whitefly intensifies its development, gives offspring every 18-20 days.

According to the research of Sh. T. Khodzhaev, the tobacco whitefly in the field gives 7-8 generations per year, but the pest spends further periods of its development in greenhouses and gives information that they give another 3-4 generations under these conditions. The harm of whiteflies is that they suck the juice from plant cells and reduce their organic matter. In addition, in the liquid secreted by the whitefly when it feeds, saprophyte fungi develop, which cover the surface of the leaf, disrupting the process of photosynthesis and various biochemical processes. Due to the defeat of the tobacco whitefly at the beginning of the growing season, the plant may die altogether.

According to O. A. Sulaimanov, it was found that the crops that created the largest whitefly population in terms of yield are vegetable crops. Studies of the viability of Bemisia tabaci in cucumber crops at an air temperature of +20, 25, 30°C were carried out. The development of the whitefly lasted 34.8 days at an air temperature of +20°C and 14.1 days at an air temperature of +30°C. The death of offspring in the egg, larval and nymphal periods sharply decreased from 45.8 to 17.3% with an increase in air temperature. Under these conditions, the survival rate of females was 16.8-34.1 days. The average fertility was 150-263 eggs. The daily fertility was 4.2-12.7 eggs. Studies have shown that the species B. tabaci is resistant to high air temperatures.

Conclusion. Tobacco whitefly sucks the juice of plants, slows down their growth, reduces the yield by an average of 30-40%. Causes the spread of various infectious diseases on healthy plants. The sticky secretions of the pest contaminate the leaf and other parts of the plant, the tobacco leaf. Such waste is considered a favorable environment for the development of mold fungi. The air temperature of 25-270C and relative humidity of 60-70% are favorable for the development of the pest.

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