



PROSPECTS OF PROTECTING COTTON FROM COTTON SCOOP IN THE CONDITIONS OF UZBEKISTAN

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ABSTRACT

This article presents the prospects of protecting cotton from cotton scoop in the conditions of Uzbekistan. Due to the fact that the cotton bollworm occupies a special place in the agrobiocenosis of cotton fields, a lot of attention was also paid to this pest. Observations and counts carried out in the period after the entry of plants into the budding phase, and until the end of the season (experiments in 2017-2019) showed the results.

KEY WORDS: *protecting cotton, cotton scoop, cotton bollworm, cotton fields, pest, budding phase, plants*

INTRODUCTION

The cotton bollworm occupies a special place in the agrobiocenosis of cotton fields and a lot of attention was also paid to this pest. Observations and counts carried out in the period after the entry of plants into the budding phase, and until the end of the season (experiments in 2017-2019) showed the followings:

MATERIALS AND METHODS

On early developing cotton, the cotton bollworm begins its development earlier. The first generation of this pest begins to colonize plants in early June. But even earlier it completes in late August - early September, with the completion of the vegetation of plants. In the conditions of the Andijan region on cotton, the method of sowing cotton under the film (MPHPP), 3 complete and incomplete 4th generation of the pest develop, in the control - 3 complete (except for spring). And this requires making adjustments to the existing system of combating this pest. Namely, pheromone traps (PL) must be set first (and earlier than usual) on crops under film and effectively use the biomass. Secondly, the unusually early ripening of cotton unsettles the traditional timing of the preparation of the pest for wintering. This was especially evident in the results of earlier defoliation of plants.

As it known, in the usual sowing dates, the optimal timing of defoliation of cotton cultivated according to the MPHPP allows, due to the early maturity, to carry out this event 20-25 days earlier in

the second decade of August (Zakhidov, Turaev, 1997). The significance of these terms is that during this period there are different climatic conditions - air temperature and humidity, which make it possible to reduce the consumption rates of defoliant and biologically active substances. On the other hand, preparation of populations of cotton bollworm for wintering begins at this time (Larchenko et al., 1963). Carrying out chemical treatments during this period makes it possible to partially destroy and also poison the survivors during the wintering period (Belochuk, 1966; Miraliev, Zapevalova, 1974; Khodzhaev, 1978). Sublethal doses of insecticides are also acceptable for these purposes (Miraliev, 1969).

Of great importance in this is the method of sowing cotton seeds under film (MPHPP), the first initiators of which in Uzbekistan were the cotton growers of the Andijan region.

MPHPP has a number of features of sowing dates and agricultural techniques before the usual method. Due to this, the time of settlement and development of the main types of harmful organisms: diseases of seedlings, weeds and pests - herbivorous insects and ticks - proceed differently. This change makes its own adjustments in the historically established terms of the relationship between organisms and plants.

Therefore, to take these features into account, scientifically substantiated facts are needed for specific objects. In other words, it is necessary to study the course of these changes. Despite the fact that in the literature there are some references to the peculiarities of protecting cotton under the film, it



remained relevant, and they were included in the tasks of our research.

RESULTS AND DISCUSSIONS

In this work, we will focus on only one object - the main pest of cotton - the cotton bollworm (*Helicoverpa armigera* Hb), the success of the fight against which largely depends on the correct choice of the timing of treatments. There are reports in the literature that the success of long-term control of this pest depends on the poisoning of caterpillars during their preparation for wintering, i.e. for the conditions of Uzbekistan in the II-III decades of August, this can be done with the help of defoliant or special treatments using sub lethal doses of insecticides. The use of MPHPP makes it possible to successfully introduce this theoretical basis into wide practice, because there is a significant advance in the timing of cotton ripening, and therefore in the timing of pre-harvest defoliation. Such work was carried out by us in 2017-2019. In the conditions of Andijan district of Andijan region. On the basis of the experiments carried out, the acute and eligible for use, as well as some insecticides (arrivo and sumi-alpha), were established at a consumption rate reduced by 50%. Based on the results obtained, the following conclusions were drawn. (Table 1)

1. Defoliation of cotton grown under the MPHPP has a detrimental effect on the development of the cotton bollworm. At the same time, the acute toxicity of defoliant is manifested due to the vulnerable stage of caterpillar development during the processing period.

2. The use of special insecticides in sub lethal consumption rates, at the time of defoliation of cotton according to the MPHPP, allows to obtain a higher acute and residual toxicity.

3. MPHPP, due to the early maturation of cotton and early defoliation, allows to reduce the number of cotton bollworms both this and next year. Defoliant include: Auguron Extra (0.1 l / ha), magnesium chlorate (7-10 kg / ha)

CONCLUSION

Due to the fact that the cotton bollworm occupies a special place in the agrobiocenosis of cotton fields, much attention was also paid to this pest. Observations and counts carried out in the period after the entry of plants into the budding phase and until the end of the season (experiments in 2017-2019) showed the following.

On early developing cotton, the cotton bollworm begins its development earlier. The first generation of this pest begins to colonize plants from the beginning of June. But even earlier it ends at the end of August, at the beginning of September with the completion of the vegetation of plants. In the conditions of the Andijan region, 3 complete and incomplete 4th generation of the pest develop on

cotton sown by the MPHPP, in the control - 3 complete (except for spring). And this requires making adjustments to the existing system of combating this pest. Namely, pheromone traps (PL) must be set first (and earlier than usual) on crops under film and effectively use the biomass. Secondly, the unusually early ripening of cotton unsettles the traditional timing of the preparation of the pest for wintering.

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