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TYPES OF PESTS AND DISEASES WHICH ARE SPREAD IN THE BIOTOPE OF CUCURBIT SCROPS AND MEASURES TO CONTROL THEM

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ANNOTATION
In the article, the conditions of bioecological development of pest species, the dynamics of development during the vegetation period and the criterion of harmfulness, types of diseases are studied in the fields. Information on the biological effectiveness of measures on controlling pests and diseases encountered in the fields is given.
KEY WORDS: *cucurbits crops, melon, melon fly, porosity making fly, diseases, control.*

INTRODUCTION

Increasing the number of population in the world leads to increasing demand for food products. Among the agricultural crops, the role of cucurbits crops in the food ration is considered significant. Therefore, melons and watermelons are eaten fresh, while pumpkins are eaten processed. In order to continuously provide the population with these products, it is necessary to carry out agrotechnical measures, maintenance work and pest and disease control measures in due time from the period of cultivation to harvest.

In the conditions of the Republic of Karakalpakstan, measures to control pests and diseases, which are considered to be one of the main problems in the cultivation of cucurbits crops, are considered urgent issues.

The main biotic factor that needs to be taken into account is the feeding of pest species and the development of disease species that cause great damage to the yield obtained in the fields of cucurbits crops. In the conditions of the region, it is necessary to carry out scientific researches aimed at solving the actual issues of distribution areas of pests and diseases of cucurbits crops, features of bioecological development and the use of countermeasures.

METHODS OF THE RESEARCH

Scientific research studies include the consideration of species widely used in general entomology and agricultural entomology, development bioecology, dynamics of pests and entomophages, observations and sample collection were carried out using the methods of V.F.Paliy, K.K.Fasulati, E.P.Narchuk.

Studying the degree of development of diseases of cucurbits crops was conducted on the basis of the methodical manual of VIZR, determining the degree of damage caused by parasites - on the basis of the methods of A.I. Dudka, S.P. Wasser, A.A. Ellanskaya, determining the degree of spread of diseases - on the basis of methods A.E. Chumakov, T.I. Zakharova.

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RESULTS OF THE RESEARCH

The microclimate and biological factors that can be formed in the biotopes of melon, watermelon and pumpkin plants from the types of field crops in the conditions of the region are considered to be the main factors in the development of pests and diseases. During the vegetation period, under the influence of harmful factors, the vegetative and generative organs of the plant become the main source of nutrition and development. Due to this, pest and disease control measures were carried out from the beginning of the growing season until harvesting. The data collected on the types and diseases of representatives of the two-winged family found in the fields during 2018-2022 in the conditions of our research were analyzed. 15 types of insects were taken into account and divided into groups according to feeding processes in our observations on identifying the types of two-winged insects found in melons from the types of cucurbits crops of the Republic of Karakalpakstan.

Disease-causing parasites belonging to 3 classes, 6 orders, 8 families, 15 genera, 26 species, and 7 forms were identified in our disease detection studies. 22 species and 7 forms of identified parasites are found in melon, 19 species and 2 forms are found in watermelon.

According to the results of the conducted research, among the members of the Diptera family, in the early stages of the vegetation period of the cucurbits crops, midges, black flies, gray flesh flies, cabbage flies, swede flies, apple flies, real mosquitoes, tachin flies, syrphid flies, gallitsa, shrechas, round flies are clearly visible. During the growing season in melon fields, the development of two-winged black fly, Drosophila fruit fly, gray flesh fly were observed in rotten fruit and other organic matter.

In our research, among the pests the porosity making flies and the melon fly are considered to cause the main damage to cucurbits crops. According to the results of our observations in the melon fields, the number of porosity making flies and melon fly increases in the fields where controlling measures have not been carried out, and they cause serious damage to the quality and quantity of the harvested crop. It has been proven that in the fields where their number has increased, it reduces the yield up to 80-100%.

A bioecology of interdependent development has been formed on the reception of food by fly species that develop in melon fields. The reason is that the fruits fed on melon fly worms quickly rot, and in the years when this physiological process exists, it was taken into account that other species multiply. As a result, it was taken into account that other fly species lay eggs on the fruits that have started to rot due to the damage of the melon fly, the worms develop, and the mature breed of the next generation flies out. 6.8-23% of pupas collected from the field were other species. Today, scientific research is being carried out on the synthesis of the pheromone in the laboratory conditions by collecting the female breed of the melon fly pest.

The following chemical preparations recommended from 5:00 a.m. to 8:00 a.m. for controlling porosity making flies and melon flies: Detsis, 2.5% em.c. at the rate of 0.7 liters per hectare, Cypermethrin, 20% em.c. - 0.2 l/ha, Nurell-D, 55% em.k.- 0.7 l/ha, Konfidor, 20% em.k.- 0.1 l/ha, Karate, 10% em.k. - 0.25 l/ha, Avaunt, 15% sus.k. - 0.45 l/ha, Enjeo, 24.7% sus.k. - 0.25 l/ha, Fufanon, 57% em.k. - 0.5 l/ha. When they were used 85.0-95.0% biological efficiency was achieved.

When the fungicide Previkur SL 722 s.e.k. (1.5 kg/ha) was used against powdery mildew of melon, its biological efficiency was 87.8% after 15 days, depending on the consumption rate. When fungicides Previkur SL 722, s.e. (1.5 kg/ha), Falkon 46% em.k. (0.4 l/ha), Alto Super 33% em.k. (0.3 l/ha) were used in controlling melon disease, depending on the rate of consumption, biological efficiency of fungicide Falkon 46% em.k. was 89.9%, Alto Super 33% em.k. - 87.7%, Previkur SL 722 s.e.c. - 85.5%.

CONCLUSION

In the agrobiocenosis of Karakalpakstan the melon fly (Myiopardalis pardalina Big), a member of the dipteran group that collects in the melon biotope damages fruits, while the porosity making fly (Liriomyza bryoniae Kaltenbach) is

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considered as a phytophage that damages the vegetative organs, and requires countermeasures.

Fusarium wilt, verticillium wilt, powdery mildew, spotting, rotting of roots and fruits and other diseases were found to be widespread in the cucurbits crops grown in our republic. It is recommended to carry out the countermeasures in the specified cucurbits crops.

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