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FAMILY REPRESENTATIVES OF ALEYRODIDAE IN VEGETABLE AGROBIOTSENOSIS AND THEIR EFFECTIVE ENTOMOPHAGE TYPES

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Abstract:

The article identified the entomophagous species that are constantly feeding on alfalfa, and identified 27 species of entomophagous predominant species belonging to 7 families of entomophagous species of alfalfa pests. According to him, it was observed that these are the families Neuroptera, Aphelinidae, Syrphidae, Coccinellidae, Anthocoridae, Nabidae, Miridaeo. According to the ratio of entomophages, the most populous families were identified as goldflies (Shrysopidae), khan beetles (Coccinellidae), and wild caterpillars (Miridae). Their populations formed a diversity. Studies have been conducted on the use of parasite encarcation parasites in the management of white matter levels. It has been used in a variety of consumption norms against leachate in open and closed conditions. Encarsia (Encarsia partinopea Masi) was used to control the amount of Trialeurodes vaporariorum in greenhouse conditions. In the greenhouse, 87.9% biological efficiency was maintained for 28 days after application of enkarsia in a ratio of 1:10 in tomato crop.

Keywords: algae, species, occurrence, entomophagous ratio, population, degree of infestation, entomophagous, enkarsia, efficacy.

Currently, there are 1,156 species of insects belonging to the family Aleyrodidae (whites) on Earth, according to Martin & Mound (1987). Later in the study of insects belonging to the family Aleyrodidae (Hemiptera) notes that there are 166 families, 1551 species belonging to 3 subfamilies (Aleurodicinae, Aleyrodinae, Udamosellinae). They have shown that their morphological aspect is of great importance in distinguishing white species from one another. It is believed that the transition of the fourth stage of development of insects belonging to the family Akanat to the sponge during the nymph is different from each other (Gregory A. Evans., 2007).

In our country, 4 species of phytophagous members of the family Alerodoidae cause serious damage to agricultural crops. Although the biological properties of this pest and its damage to agricultural crops, entomophagous have been studied by several scientists, the lack of effective methods and tools to control the amount of this pest requires further research on this pest (Kimsanbaev H., Rashidov M.I., Sulaymonov B.A., 2001).

Eggplant and tomato crops are seriously damaged due to the fact that the greenhouse effluent forms a large population in open field crops and later prefers crops belonging to the tomato family. It was found that this pest began to damage agricultural crops in the 70s of the XX century and began to lose a certain part of the crop (Alimukhamedov S.N., Khodjaev Sh.T., 1980, Alimukhamedov S.N., Khodjaev Sh.T., Eshmatov O.T., Khoshimov X., Khakimov M., Kadyrov A., 1990.).

RESEARCH METHODS.

In order to identify the entomophagous species of greenhouse algae in the conditions of Uzbekistan and to apply their capabilities in the management of pest numbers, we conducted observations in 2019-2020.

The research was conducted in the agrobiocenosis of vegetables and melons in Tashkent, Syrdarya and Andijan regions. According to him, the crop was carried out on crops such as tomatoes, eggplant, cucumbers and melons. In the open field conditions were carried out in the field of tomatoes and sunflowers infested with aphids. According to him, 3,0 ha of tomatoes and 2,0 ha of sunflower and cucumbers, melons, cotton, beans, crops agrobiocenosis were studied as experimental areas.

The composition of the main parasite-predatory species of alfalfa in the agrobiocenosis of vegetables was determined. According to the data collected, 27 species of predatory and parasitic entomophagous species belonging to 7 families of entomophagous species of whiteflies were identified.

According to the experimental results (Table 1), no efficacy was observed in the parasitized fields on day 3, but Pilarclotrin showed 80,9% biological efficacy in the area where 28% was applied. One week after the parasite was released, parasitic colonies began to form but the number of pests did not decrease. He stopped the amount of pest but could not lower it. Biological efficacy was 92,6% when Pilarclotrine 28% ZC was administered on day 7. In the variant in which enkarsia was applied, the amount of alkali began to decrease on days 12-14, the biological efficiency was found to be 42,2% in the 1:10 ratio, 28,8% in the 1:20 ratio, and 11,6% in the 1:30 ratio. On day 14, the biological efficacy was reduced to 76,9% in the reference variant (Pilarclotrine 28% ZC). At 28 days after incarceration, 83.1% biological efficiency was achieved in a 1:10 ratio, and by the end of the season, parasitic entomophages were able to effectively control the amount of mites.

In our next variant, the 21-day biological efficiency was 57,0% when the protein was applied in a 1:20 ratio. On day 28, the biological efficiency of the mite parasite was 64,2% and controlled the amount of mite until the end of the season.

In our next variant, when the parasite host relationship was applied at a 1:30 ratio, the biological efficiency was slightly lower than the above options. In this variant, the biological efficiency was 21 days and was 44,7%. On the 28th day, the figure was 51,7%. Due to the low level of white matter control in this variant, the amount of white matter per leaf was on average 12,4 pieces by the end of the season.

In our reference variant, the level of pest control was initially high, and then the population size of the pest was restored.

Table 1.
Biological efficacy of anti-mite infestation in greenhouse tomato crop (Andijan region, Andijan region, 2019-2020)

Options	Number of whites before application of encarcia, pcs	After application of Encarcia, pcs				
		3 days	7 days	14 days	21 days	28 days
Encarsia: whitefly (1:10)	28,4	31,2	29,6	16,4	8,5	7,2
Encarsia: whitefly (1:20)	26,3	33,5	25,8	18,7	11,3	9,4
Encarsia: whitefly (1:30)	25,7	32,4	27,3	22,7	14,2	12,4
Pilarclotrin 28% ZC. (0,45 l / ha) (Reference)	27,8	5,3	0,4	6,4	14,5	23,7
Control	29,1	33,1	38,6	44,3	51,8	58,2
Biological efficiency						
Encarsia: whitefly (1:10)	28,4	-	-	42,2±0,5	70,0±0,4	83,1±0,8
Encarsia: whitefly (1:20)	26,3	-	-	28,8±0,6	57,0±0,2	64,2±0,5
Encarsia: whitefly (1:30)	25,7	-	-	11,6±0,2	44,7±0,6	51,7±0,3
Pilarclotrin 28% ZC. (0,45 l / ha) (Reference)	27,8	80,9±0,4	92,6±0,8	76,9±0,5	47,8±0,3	14,7±0,6
Control	29,1	-	-	-	-	-

Pilarclotrine 28% ZC as a standard. The biological efficacy of the drug compared to phytophagous on day 21 was 47,8% (average 14,5 units per leaf) of grain.

CONCLUSIONS.

In the study of vegetable agrobiocenosis damage to the mite and family members, the formation of parasitic-host interactions with parasitic entomophagous Encarsia greenhouse mite was studied, and the incarceration: averaged 70,0% on the 21st day when applied to the mite (1:10). 28-day enkarsia: a high efficiency of 83,1% was achieved when applied in a ratio of 1:10.

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