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Shamsi Esanboev
Tashkent State Agrarian University
Department of Plant Protection
shamsi.esanboyev51@mail.ru

Joshqin Esanboev
Tashkent State Agrarian University
Department of Plant Protection
Tashkent-100140, University str., 2, Uzbekistan

BIOLOGICAL EFFICIENCY OF APPLICATION OF PROSPECTIVE CHEMICALS AGAINST EASTERN FRUIT MOTH

Abstract: *According to the article, 10 species of pests were observed in orchards in Tashkent region. Among the pests encountered, it was noted that the main pest of orchards is the dominant pest compared to other pests with the damage caused by oriental fruit. To protect peaches from oriental fruiter at least 3 times during the season: after gross flowering and at intervals of 18-22 days Alfamilin, 17% s.c. - 0.15 l / ha, Bagira, 20% s.e.k. - 0.2 l / ha, Tadj, 10% e.k. - Studies have shown that it is highly effective in chemical treatments at the rate of 0.15 l / ha and effectively protects orchards from the main pest of oriental fruit.*

Key words: *Orchards, arthropods, rodent damage, damage, spread, chemical control, biological effectiveness.*

Language: *English*

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Introduction

At a time of global climate change, rapid population growth, acceleration of the production process, a number of problems are growing in the food industry, as in all sectors. These problems can be solved only through the creation of scientifically based new innovative technologies and the resources obtained as a result of their introduction. According to the World Food Organization (FAO), up to an average of 35% of the crop yields on earth alone are lost to pests, diseases and weeds [3,8].

In the world, changes in natural climatic conditions have an impact on the environment, ecology, the impact of the human factor on nature, the decline of local biocenosis and a sharp increase in some non-specific. This poses a serious threat to the cultivation of agricultural crops. The creation and cultivation of orchards requires a lot of scientific research to increase productivity and improve their quality as a result of the influence of various factors in nature.

A number of tasks have been set in the country to further develop the fruit and vegetable and viticulture sector, to create a value chain in the industry, so it is important to develop the fruit and vegetable and viticulture sector, to produce export-oriented products through processing.

Today, a number of pests are encountered and damaged in orchards, leading to reduced yields. In solving the above problems, the species composition, biological and ecological characteristics, distribution, degree of damage and control measures of the main pests of orchards are urgent.

LEVEL OF LEARNING OF THE TOPIC. B.A. Suleymanov, Sh.Khojaev, E.Esanboev, A.Kh.Yusupov, A.Anorbaev, E.Lyan, S.Dusmanov, B on the biological characteristics, development and harmfulness of the main pests of orchards on crop types, control measures S.Boltaev, B.Z.Xamraev,

M.A.Bulyginskaya, A.A.Azizyan, A.S.Akopyan, A.S.Danilevskiy, Yu.I.Budashkin, T.I.Bichina, V.I .Talitsky, studied in the conditions of Tajikistan by A.Ya.Ivanov, N.Ya.Sokolenko, V.G.Baeva. M.Sharipov (1985) studied the biology and ecology of this pest in the conditions of the Republic and conducted research [1,2].

PURPOSE OF THE RESEARCH. In 2018-2020, research was conducted to study the most promising chemicals against oriental fruit, the main pest of orchards of Tashkent region, and the favorable period of their use.

RESEARCH METHODS. The research was performed using methods and techniques widely used in general entomology as well as agricultural entomology. Entomological calculations and observations with the help of G.Ya. Bey-Bienko, L.A. Kopaneva; K.Fasulati's methods in determining the density, occurrence, dominants of pests; performed on the basis of. The degree of insect damage was determined by the method of VI Tansky. Agrotoxicological experiments were carried out in accordance with the method of K.A.Gar, Sh.T.Khojaev. The calculation of biological efficacy in field and laboratory experiments was determined according to the W.S.Abbot formula, which takes into account the control variant. The obtained results were processed mathematically and statistically using the methods of VI Terekhov, SP Afonin and BA Dospekhov [4,7].

RESEARCH RESULTS. In the conditions of the republic there is no scientifically based technology for the use of chemicals against oriental fruit, which is harmful to fruit trees, which meets modern requirements [9].

The cost-effectiveness of chemicals when used in orchards can vary depending on the nature of their exposure, the duration of application of the drugs, climatic conditions and the aggregates used. Not all chemicals used also give the expected effect. Although some drugs have high biological effectiveness, they have a negative impact on the environment and natural entomofauna. Orchards are also rich in aphids, thrips, spiders, thyme and other species of fruit trees. Therefore, it is advisable to use chemicals designed to control complex pests [6,5].

At the same time it is advisable to carry out control measures against oriental fruit using insecticides. For this purpose, in 2018-2020, in our research in the orchards of Kibray district of Tashkent region, we tested drugs with insectoacaricidal properties for complex pests of oriental fruit. Of the drugs in the experiment: Alfamilin, 17% s.k. - 0.15 l / ha, Bagira, 20% em.k - 0.3 l / ha, Tadj, 10% e.k. - 3 times during the season at the rate of 0.15 l / ha yellow: sprayed once after the general flowering and at intervals of 18–22 days. Each variant in the experiment was performed on 3 returns (Table 1).

Table 1. Biological effectiveness of insecticides against oriental peaches
(Qibray district of Tashkent region, 2018-2020).

Preparation	Consumption rate, l / ha	Number of processes	Of fruits damage,%		Biological efficiency,%
			Control (unprocessed)	experience	
Alfamilin, 17% s.k.	0,15	3	52,4	2,3	88,6
Bagira, 20% s.e.k.	0,2	3	64,6	1,6	95,3
Tadj, 10% e.k.	0,15	3	55,1	2,0	89,5
EKF05 2,8					

According to the results obtained after ripening of fruits in the field sprayed with insecticides, it was found that in the variant where Alfamilin was used, the infestation of fruits with oriental worms was 2.3% (control 52.4%), in the variant using Bagira 1.6% (control 64, 6%), Taj was 2.0% (55.1% in the control) in the variant used. The biological efficiency of the drugs in the test was 88.6-95.3%, respectively.

CONCLUSION. Concluding from our scientific research, it can be said that to protect peach fruits from oriental fruit at least 3 times during the season: after gross flowering and at intervals of 18-22 days Alfamilin, 17% s.c. - 0.15 l / ha, Bagira, 20% s.e.k. - 0.2 l / ha, Tadj, 10% e.k. - Chemical treatment at the rate of 0.15 l / ha gives high efficiency and effectively protects orchards from the main pest oriental fruit.

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