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Bioecology, Harm And Efficiency Of Certain Preparations Against The Apple Fruit Sawyer (Hopllocampa Testudinea Klug.)

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ABSTRACT

This article provides data on the harmfulness, distribution and lifestyle of the apple sawdust widely noted in recent years in the intensive orchards of the republic. In order to determine the effectiveness of insecticides against olm arrakashi, observations were first carried out based on the sex pheromone. On this basis, in three variants, the drugs Dalate Plus 10% ae, Entovant 15% ae, Protect 5% em.k were tested, a higher efficiency was observed in the variant where the drug Dalate Plus 10% ae was used, - 0,2 l / ha, where the biological efficiency was 86.7% in comparison with the control.

KEYWORDS

Bioecology, harm, control, efficiency of certain preparations, harmfulness, distribution, lifestyle.

INTRODUCTION

One of the main factors in increasing the productivity of orchards is their protection

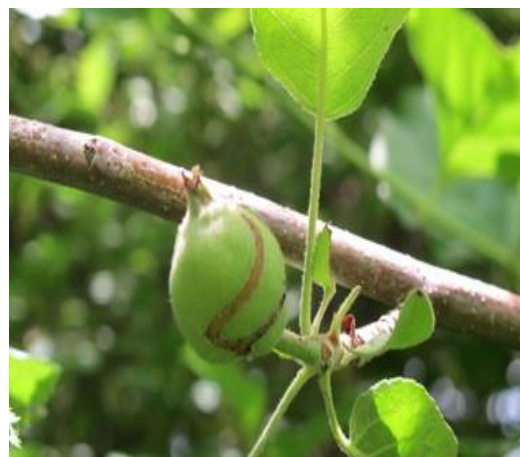
from pests and diseases. More than 100 pests and diseases known to damage orchards are

known. In the process of global climate change, the prevalence of pests and diseases varies as a result of inconsistent weather each year. With a good knowledge of the bioecological characteristics of pests, it is very important to carry out control measures in their most vulnerable period.

Hoplocampa testudinea Klug. The length of the adult insect is 6-7 mm, the upper part of the body is brown, the lower part is yellow. It has two pairs of transparent wings with a network of black double veins. The larva has a white, brown head and 10 pairs of legs. The length of the adult larva reaches 12 mm. The dome is thick oval, densely cocoon-shaped. The larvae overwinter at a depth of 5-10 sm in the soil, sometimes they can be found at a depth of 20 sm. In spring, the larvae grow when the soil at a depth of 10 sm heats up to 10°C. Adult insects occur and appear on the buds of apple trees before flowering.

The adult larva eats all the seeds and completely destroys the seed chamber. Depending on the size of the fruit, each larva can damage 3 to 6 fruits. Fruits that are not damaged by the seed chambers usually do not fall. In June, the larvae complete their development, leaving the fruit, fall to the ground and form cocoons in dense soil. In the absence of moisture, they go into a state of diapause and remain in the soil for up to two years. The damage done to the apple fruit by the arrakash is similar to the damage caused by the apple moth.

The difference is that the moth eats some of the seeds, while the arrakash completely destroys all the seeds. Holes in fruits damaged by moths are usually covered with debris. The holes made by the apple larvae remain open and a rusty red liquid comes out of them. Pest larvae emit an unpleasant odor reminiscent of the smell of rust.



Apple fruit sawer (*Hoplocampa testudinea* Klug.).

In order to test and determine the biological effectiveness of some pesticides, observations and experiments were conducted in a 3-hectare orchard in Kibray district, Tashkent region.

Table 1.

Effectiveness of modern drugs against apple fruit sawer (Yusupov Manon, farm Kibray district, Tashkent region, 2020)

Nº	Name of drugs	Consumption rate, l / ha	Efficiency,%	Gross crop damage	Efficiency,%
1	Dalate Plus 10% em.k.	0,2	86,7	13,4	76,2
2	Entovant 15% em.k.	0,25	84,5	14,2	74,8
3	Protect 5% em.k. (default)	0,3	82,5	14,9	73,6
4	Control (unprocessed)	56,4	-		

As can be seen in the table, the biological effectiveness of modern insecticides against apple cider vinegar Dalate Plus is 10% k.e. (86.7%), Entovant 15% k.e. (84.5%), Protect 5% em.k. (70.8%). It is prohibited to send fruits, infected seedlings and plant parts from the pest-affected areas to clean areas. The conclusion from the results is that it is important to take timely measures to control apple orchards in orchards. In order to carry out an effective system of pest control in a timely manner, high biological efficiency can be achieved by applying Dalate Plus 10% k.e. preparat at a rate of 0.2 l / ha.

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