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THE EFFECTIVENESS OF INSECTICIDES AGAINST GNAWING SCOOPS ON RE-SOWN POTATOES

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This article discusses the spread gnaw winter and exclamatory scoop (*Agrotis segetum* Den. Et Shiff and *Agrotis exclamatoris* Den. Shiff. Et) on potato crops, their harmfulness and effectiveness of use as measures against drugs PERFECTUM 28% K. S. and KARATE 5% em.k. the studies were conducted in the farm of "Kandiniso dono" Average Chirchiq district of Tashkent region.

Keyword. Gnawing scoops, prevalence, crops of potatoes, root zone, germination, tuber, feromona trap, insecticide, option, biological efficiency.

The natural climatic conditions of Uzbekistan, as well as favorable air temperature during the growth of plants will allow many harmful creatures to develop. Consequently, thousands of harmful insects, mites, diseases develop in crops and adversely affect the quality and quantity of crops (1).

Gnawing winter (*Agrotis segetum* Den. Et Shiff) and Exclamatory (*Exclamations Agrotis* Den. et Shiff) scoops developing on crops of vegetable crops and potatoes can reduce the yield by 15-20% (4).

These types of gnawing scoops on seedlings of vegetable crops and potatoes damage plants in the root zone and young seedlings, as a result of which seedlings droop, wither, and in potato tubers form passages, which negatively affects the quantity and quality of the crop.

The winter owl (*A. segetum*) is a widespread species widely found on irrigated lands. Winter Cutworm larvae damage plants from 34 families, including cotton, alfalfa, sugar beet, corn, cereals, oilseeds, vegetables, melons and potatoes, as well as wild plants: bindweed, cocks, quinoa, etc. Caterpillars winter Cutworm damage to seedlings, seeds, causing great damage to agriculture (2).

Exclamation scoop (*A. exclamatoris*) are also common species, is the second in a malicious kind of porrusalda scoop after winter. Exclamation scoop larvae damage more than 75 plant species, which include: cereals, tobacco, kenaf, corn, cotton, sunflower, sugar beet, vegetables and potatoes (3).

On the front wings of butterflies there is a mark in the form of an exclamation mark, which is why the name of this scoop went. The morphological features and development of the exclamation scoop are very similar to that of the winter owl, but unlike it, the exclamation scoop produces two generations per year (5).

Based on the above mentioned issues, we have conducted studies to determine rasprostraneniya porrusalda scoop on the potatoes and the measures to combat them.

Objects and methods of research. Studies were carried out in Cartesian fields re-sown after wheat. According to which control of potatoes of a grade “rose gold” after emergence was made. The number of gnawing scoops was calculated from the area of 1 m² (in fields and adjacent areas) on repeated potato crops.

Pheromone traps were located in the experimental fields to account for winter and exclamation scoops. Biological effectiveness studies were identified according to the method of sh. T Haeva (2004, 2007), and the equation Abbott (1925) (6).

Research result. To determine the biological effectiveness of the research dissemination porrusalda scoop was conducted in a potato field a solid 0,5 ha in the farm “Kandiniso dono”. Phenological features and terms of development were studied.

Observations were made to determine the appearance of winter caterpillars and exclamation scoops and the effectiveness of chemicals in the fields with sprouting potato fruits. The account field size was 1 m² and the us was divided into 5 parts to 0,5 ha. Also from the upper and softer parts of the field were taken of the site for conducting the experiments, i.e. a total of 7 accounts uchastkov.

In our experiments for testing we took the chemical drug PERFECTUM 28% k.s. of the company "Euro Team", Uzbekistan. For this drug as a reference was taken preparati KARATE 5% em.k. we started accounting for the effectiveness of drugs on the 3rd day from the date of the test. (The results are shown in table 1.)

Table 1

The effectiveness of chemicals against winter caterpillars and exclamation scoop. (The farm of “Kandiniso dono” Average Chirchiq district of Tashkent region. 2023) .

№	Test cases	Consumption rate, kg, l/ha	The number of tracks (pieces) in a box 1 m ² to the drug	Number of caterpillars (pieces) on the field 1 m ² after application of the drug			
				3	7	14	21
1	PERFECTUM 28% k.s.	0,3	2,5	1,0	0,7	1,2	1,7
2	Karate 5% em.k. (Etalon)	0,4	1,9	0,8	0,7	1,1	1,4
3	Control (without treatment)	-	2,0	3,1	4,2	5,5	6,2
<i>Biological efficiency by day, %</i>							
1	PERFECTUM 28% K. S.	0,3	2,5	73,5	87,3	81,7	77,6
2	Karate 5% em.k. (Etalon)	0,4	1,9	71,7	81,6	77,8	75,1
3	Control (without treatment)	-	2,0	-	-	-	-

The results of the study showed that the use of the drug PERFECTUM 28% k. s. in the control variant the number of tracks in a 1 m² was 2,5, and on the 3rd day after use of the drug biological efficiency reached 73,5%, on the 7th day it reached the highest at 87,3%. On the 14th day after the use of the drug, the biological efficacy index was 81,7%. By the 21st day of our tests, this figure had dropped to 77,6%.

And in trials drug Karate 5% e.m. because the number of caterpillars before the test was 1,9, and on the 3rd day after use of the drug biological efficiency reached 71,7%, 7-day the figure reached the highest 81,6%, On 14th day after treatment indicator of biological efficiency of 77,8%. By the 21st day of our tests, this figure had dropped to 75,1%.

Conclusions and proposals. According to the study, the timely and effective use of pheromone traps in the control of winter caterpillars and exclamation scoop is an important factor in the management of their numbers from the moment of germination of potatoes from the soil. High biological efficiency can be achieved by timely application of PERFECTUM 28% k.s. in the norm of 0,3 l/ha against these gnawing scoops.

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