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Table Of Content

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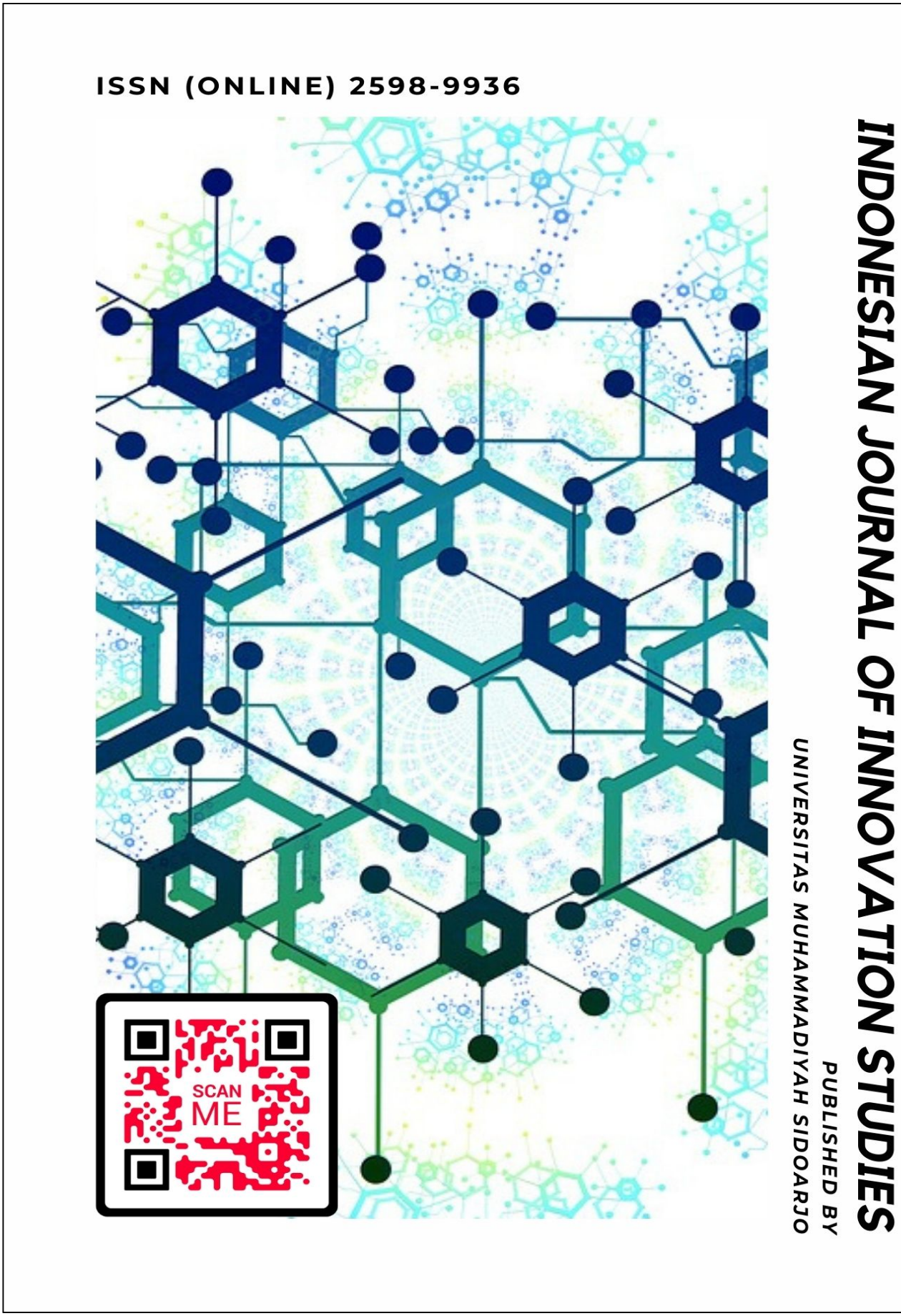

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Total humiliation pests and fight against them.

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Abstract

Uzbekistan has undergone fundamental reforms in all areas of agriculture. The main goal is to ensure food security. One of the factors that can reduce crop yields is insect pests. One of the insects that pose a threat to agricultural crops is the locust. The observations were mainly conducted on Asian, Moroccan, and locust swarms.

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Introduction

In the Republic of Uzbekistan, as well as in all areas, the radical reforms are being implemented in the agricultural sector. Requires that all agricultural products have qualitative indicators that meet the world market requirements. Reforms are now underway in all sectors of agriculture, and a number of measures are being taken to ensure the country's food security. Insect pests are one of the factors that reduce crop yields. Therefore, protection of plants from diseases is one of the most pressing issues.

The unique climatic conditions of Uzbekistan, as well as the favorable weather conditions during the vegetation period, allow the development of many harmful species. That is why thousands of insects, mites, diseases, and diseases in agricultural crops have a negative impact on the amount and quality of crops.

In Uzbekistan, one of the most common pests (Acrididae) is a persistent threat to cotton, wheat, vegetables, melons, orchards and other agricultural crops.

In recent years, the expansion of the grainfields has made the area where pest populations are spread, closer to the cropland. As a result, the threat of swarms of locusts increases every year. This is especially true for Surkhandarya, Kashkadarya, Samarkand, Jizzakh, Fergana, and Andijan regions.

Andijan region predicted the spread of harmful locusts on 2,800 hectares in 2018, of which 1,700 hectares could be spread in the regional districts, with 500 hectares expected to cross the adjacent republic, and a total of 2,000 hectares. 175 thousand hectares, 880 hectares in Bulakbashi district and 1 thousand 93 hectares in Markhamat district with the chemical treatment of 3,148 hectares.

The observations were mainly conducted on Asian, Moroccan, and Hornbill. The biology and ecology of insects were studied directly in the field, and some of the issues were studied in laboratory studies. Locust larvae and mature breeds were harvested using entomological matrap on low grass grass plants.

During the study, a total of 1216 locust larvae and mature breeds and 132 species of larvae were collected and their species composition was determined.

Asian grasshopper (Losustamigratoria) .

This locusts are also often referred to as nomadic locusts. They are most common in Europe, Asia, Africa, North Australia, South America and the Indian and Pacific Islands.

Main part

The main locusts cover the middle and lower reaches of the Amu Darya, and can live up to one million hectares of reeds. Pigeon locusts are about 70-75 mm in size with an average of 65.0 mm females, with a mixture of gray, green, yellow-green, often gray and black. The lower part of the chest is covered with thick felt-like fibers. In front of the shoulder there is an acute appendicitis, two straight paths running along this upright or oblique. There are small gray spots on the wing.

The wings are glossy, greenish-yellow, with both sides blue, the legs light green, the upper jaw blue. Flying locusts are often pale green or gray with a slight exaggeration on the front of the shoulder. After winter, the tugai locust emerges from its eggs and from its nest in early May, sometimes in mid-April.

Moroccan grasshoppers (Dosiostaurusmarossanus) are large males 20-28 mm, females 28-38 mm, brownish brown spots with a common color. Light brownish brown chest with white cross-section. There are white spots on the sides of the chest. The wings are superior and the wings longer than the belly. Light brownish brown with black spots on the back, the back of the wings has a bright reddish tint of 3.7-4.2 times the width of the lower side, with a yellowish brown spit on the top. The hind limbs are red. Depending on living conditions and numbers, the Moroccan locusts are gala or differ in their phases.

Horse-grasshoppers (Dociostaurus kraussi) look a little like the Moroccan locusts, but have small body size, shorter wings, width of the crescendo, and black spots on the sides. Females 23–31,5 mm long, 16-20 mm, dark brown or dark gray with dark spots not visible to the naked eye. Females are covered with red spots, males, and lateral black spots. On the back, the X cross is white, similar to the Moroccan grasshopper. The body is thicker than the Moroccan locust, and the male is much shorter than the female wing.

This pest is common in Central Asia and does not damage wheat, barley, alfalfa and cotton. Often these locusts are in the same place as the Moroccan locust. These locusts emerge from the eggs in late March and early April, initially with light brown or dark gray color and grow white. The larvae have a pattern of light-colored dots on their bodies that look just like those of mature locusts.

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In the Bulakbashinsky district, the use of traditional anti-locust phosphorus preparations (Carbofos, 50% ammonium) is a new hazardous drug Nomolt, 15%, susp. and Dimilin, 18% sus., comparative study of the efficacy of the drugs, comparative study of the effects of these drugs on the elements of pasture entomofauna. Nomolt, 15% sus.

Analyses

The active ingredient is teflubenzuron, which has the following advantages:

- has long-term and long-term effects on locusts;

- beneficial to beneficial insects, bees and other marine creatures;

- low pesticide allocation to pastures due to low consumption;

- less harmful to the environment, mammals, birds and fish.

Feature of the drug Nomolt is its breadth and duration of action. The antidepressant's effective response time was 15 to 18 days (for pyrethroids it lasted 3-5 days).

Nomolt drug is recommended for use in the country on the rate of 0.05 liters per hectare against pests.

Dimilin is 48% susceptible to the drug, Diplucenzuron, which controls the growth and development of insects.

Distinctive feature of the drug Dimilin is that in the first days after its application insects stop feeding. During this time, the locust was left without movement, and its wings died 4-5 days later. Mass destruction of insects in the infected areas is usually observed for 5-10 days. The drug has the following advantages:

- the locust eggs are completely controlled by single-injection locusts;

- Due to the possibility of barrier use, the drug costs are reduced and environmental protection is increased.

The rate of consumption of the drug against grasshoppers in pastures is 0.03 l / ha.

Table 1 . Effectiveness of pyrethroid and phosphorus-based drugs against locusts

(F.Gapparov., S.Usmanovyu., Andijan Region. Buloqboshi District, 2018).

Experiment variant	The drug consumption rate, kg / l	1m2 number of locusts in the field (pcs)				Biological efficiency %
		Before processing	Hours after processing			
			1	3	24	
1.Carate, 5% Em.	0,15	180,4	103,1	41,4	20,3	88,9
2. Karate, 5% Mo.	0,25	201,7	98,7	31,3	19,7	95,1
3.Sumi-alpha, 5% em	0,1	215,4	114,8	43,9	22,6	90,5
4.Karbofos, 50% em	2,5	190,6	122,0	68,3	30,4	84,5
5. Control	-	187,8	185,4	193,6	215,7	-

Table 1.

According to the table, when the Karate drug was used at 0.15 l per hectare of pasture locusts, its effect was reduced to 41.4 pcs per day (180.4 pcs2m2), and 20.3 lbs. recorded. The biological efficiency of this variant was 88.9%.

The increased efficiency was achieved with the use of karate drug at a rate of 0.25 liters per hectare.

Experimental sari-alpha was administered by 0.1% l quantity experience miqdorida sarflab ishlov with 5% kp.preparatigec, with 114.8 in 1 hour, and 22.6 in 43.9 units in 3 hours. After 24 hours, the drug has 90.5% efficacy.

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Phosphororganic Preparation - Carbofos is provided with 2.5 lbs of 50% cc of application. At the same time, the locusts were more resistant and the bioavailability of the experiment (24 hours later) was 84.5%.

The conclusions in the foregoing are worth pausing and indicate that pyrethroid va fosfororganicpreparations may be used in the treatment ofpreparations. However, these drugs, especially pyrethroids, are effective in the short-term (up to 1-3 days) of antidepressants. The result is based on the fact that the larvae from larvae were infected by the larvae from the adjacent regions.

Dimilinpreparatigraphy was applied 0.03 lsarfetilab for about 5-10 days. In the first 5 days 96.4 of 148,3 medium-sized 1m2, 10-day 32, 1-step xolos, and 15-day intervals of 14 days of treatment were 95.4%. The above indices are listedNomoltpreparatid. In the last 15 days, the Bundestag was only 6.8 points out of 164.7 in the first half, with 98.1% of the highest efficiency. In the case of hypodermic acid, pyrethroid drug is shown after treatment with a mild drug (89.2%).

Table 2 . Effectiveness of Dimilin and Nomolt Drugs against Locust Drugs

(F.Gapparov. S.Usmanov. Andijan Region. Buloqboshi District, 2018).

Variants	limit kg, l/ga	Before process	1	5	10	15	Biological efficiency %
1.Dimiline, 48% susp	0,03	148,3	141,0	96,4	32,1	10,8	95,4
2.Nomolt, 15% sus	0,05	164,7	131,6	78,8	12,0	6,8	98,1
3.Fastak, 10% of em	0,1	115,4	26,7	-	-	-	89,2
4. Control	-	157,4	143,1	-	216,8	243,9	-

Table 2.

Changes in the size of the 10 family members of the 5 categories: hard-winged, net-winged, semi-hard-wing, curtain-wing and coin-wing.

Observations show that in the area treated with Dimilin a series of hard-winged birds, 17 from the oatmeal family, 6 from the octopus family and 1 insect from the turkey family.

Conclusions

The same is true of pyrethroidpreparateSumi-alfabilizationwith only 3 dandelions. There are 7 pieces of dystonia, 2 of them are black, 9 of them are dried. It was found that the Summit-alphabet -definition was used in the variants. Or if the demyelinated valve is 86 fathoms (of which they have the highest sensitivities), the Sumi-alphanumeric version has only 15 donatable insects.

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