NOVATEUR PUBLICATIONS
JournalNX- A Multidisciplinary Peer Reviewed Journal
ISSN No: 2581 - 4230
VOLUME 6, ISSUE 9, Sep. -2020

EFFICIENCY OF THE BASIC RICE PESTS

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ABSTRACT:

In this article, it was found that the main pests that cause damage when studying the dynamics of pest development in rice fields Apus concriformis Sh. According to the results of the study, the sowing area of variant the Nurell D 55% (1.5 l/ha) was 7.1 t / ha, which is 2.01 tons more than in the control.

KEYWORDS: Rice, water, pest, rice fields, crop, biological effectiveness.

INTRODUCTION:

Scientists from leading rice producing countries, China, India, Vietnam, Indonesia, Japan and Korea are conducting research in priority areas such as increasing productivity, improving grain quality, rice pest species composition, bio-ecological characteristics and the development of promising pest control methods. Nevertheless, today the issues of preventive measures against pests and the development of an integrated protection system are relevant.

The pests cause great damage to the rice plant throughout the growing season. The most severe pests in rice-growing areas of the country are Apus concriformis Schiff, Leptestheriaco Sa, which damage rice fields.

THE DEGREE OF KNOWLEDGE OF THE PROBLEM:

In the conditions of our country in the 30-90s of the previous century, intensive research was carried out on the study of rice pests and the organization of the fight against them [V.P. Shagaev, V.S. Chuvakhin, V.V. Yakhontov, M.P. Sbornikova, A.A. Shokirov, etc.]

Global climatic changes taking place today, an increase in the area of grain sowing, the organization of farming, abrupt changes in the structure of crop production, an increase in the number of sown crops have significantly changed the composition of agrobiocenoses, including contributed to the growth of harmfulness of rice pests [Helliwell S. Stevens M.M. [4]

RESEARCH METHODS:

Entomological as well as agrotoxicological studies were carried out according to the Methodological Guidelines published under the editorship of Sh.T. Khodzhaeva [2]: "Guidelines for testing insecticides, acaricides, biologically active substances and fungicides", as well as by the methods recommended by A.A. Shakirov and others [3], as well as A.I. Kasyanov [1]. The biological effectiveness of the methods was determined according to the well-known formula of V. Abbott.

The aim of the study is to improve the general system of protection of rice from pests based on the study of the species composition of pests in agrobiocenoses, the peculiarities of their development, harmfulness and the use of modern means and methods in the fight against them.

RESEARCH RESULTS:

According to the results of the studies carried out in general, these pests mainly cause great harm to rice in the germination phase, damaging the vegetative and generative organs of plants. In the conditions of the studied areas, only 10 species of rice pests were identified. They belong to 2 classes of arthropods, 8 orders and 8 families. The main types of pests that cause the greatest damage to rice crops have been identified - these are Apus concriformis Sh. Entomological control was carried out before using the insecticide and after it after 14 days. Before treatment, for each 1 m2 of pest area, there were from 17.9 to 26.7 specimens. After treatment, the number of the pest began to decline (in addition to control). In addition, the biological effectiveness began to increase.

The following preparations were tested in the rice germination phase:

1. Attila, 5% ae. (lambdachalothrin) - 0.2-0.5-0.7 l / ha,
2. Taishin 500 s.d. (Clothianidin) -0.05-0.06-0.07 kg / ha,
3. Nurell-D, 55% ae. (cypermethrin + chlorpyrifos) - 1.0-1.5-2.0 l / ha,
4. Fufanon, 57% eq. (malathion) (standard) - 1.0 l / ha.

Three types of insecticides (Atilla, Taishin and Nurell-D), with different consumption rates, were tested to protect the Iskandar varieties during the germination of rice seeds.

On the last day of the survey (14), in all variants there was a high and positive efficiency of the use of insecticides - 87.0-93.8% (see Table 1).

Based on the economic assessment of the effectiveness and environmental impact of the tested insecticides, it is possible to recommend the use of Attila - 0.7 l / ha and Nurell-D - 1.5 l / ha in production to combat crustacean.

The study showed that 70% of the yield of pesticides Atilla 5% em.k was 70.8 centners per hectare, which is 19.8 centners higher than that of the control variant. The average yield obtained using the best chemicals (Nurell-D 55% em. To 1.5 l / ha) was 71.1 centners, which is 20.1 centners higher than in the control.

CONCLUSIONS:

In the conditions of the studied areas, only 10 species of rice pests were identified. They belong to 2 classes of arthropods, 8 orders and 8 families. Young rice seedlings are significantly harmed by the shield crustacean (Apus concriformis Sh.). Shield crustacean is a representative of arthropod animals - Arthropoda, crustacean class - Crustacea, family - Apedeae. It is characterized by a peculiar way of life, it develops in one generation per year. Rice plants damage the larvae of the pest, which hatch in the spring from successfully overwintered in the soil

Table 1. Biological effectiveness of insecticides in pest control Experimental site NIIZR, Tashkent region, "Iskandar" variety,2018 .

Options	Consumption rates of drugs, l / ha	On average, the number of crustaceans per 1m², specimen				Efficiency,% for days:
		Before processing	After processing:			
			1	7	14	14
Atilla 5% em.k.	0,7	25,4	16,5	6,5	3,0	92,3
Atilla 5% em.k.	0,5	24,5	18,3	9,5	3,2	91,2
Atilla 5% em.k.	0,2	26,6	20,8	11,0	7,0	82,5
Taishin 500 s.d.g	0,07	25,3	18,5	8,5	3,2	91,1
Taishin 500 s.dg	0,06	27,2	19,0	9,2	2,8	90,5
Taishin 500 s.dg	0,05	25,5	23,4	10,6	4,7	87,6
Nurell-D, 55% em.k.	1,5	16,0	10,6	6,5	1,5	93,8
Nurell-D, 55% em.k.	1,2	16,5	11,3	7,0	2,0	91,5
Nurell-D, 55% em.k.	1,0	15,0	13,5	7,5	3,0	87,0
Fufanon, 57% e. (reference)	1,0	18,7	13,9	7,6	3,2	88,5
Control (no processing)	-	17,9	18,0	21,3	26,7	-

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