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Insectoacaricide Alfa Toro Against The Apple Worm Plant On The Apple

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ABSTRACT

In the conditions of Uzbekistan insecticidal Alfa Toro, 15% k.s.pokazal vыsokuyueffektyvnost against yablonnoyplodojorkinayablone v normerasxoda 0,2 l/ha. We recommend to include insecticide insecticide Alfa Toro, 15% k.s. for application against yablonnoyplodojorki on yablone at the rate of consumption 0,2 l/ha.

KEYWORDS

Insectoacaricide, Efficacy, Codling Moth, Apple Tree, Pesticides, Plant Protection, Plant Protection, Garden Pests, Fruits.

INTRODUCTION

The main industry in the economy of the Republic of Uzbekistan is agriculture. Modern technologies for the production of agricultural products, based on the widespread use of pesticides and mineral fertilizers, made it possible to largely solve the problem of providing the population with food, and, at the same time, gave rise to multiple ecological, medical and ecological problems, problems of ecologically pure and biologically valuable

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food, rehabilitation land, restoration of their fertility. Therefore, the arrival of new classes of pesticides with different mechanisms of action, high selectivity and low toxicity for warm-blooded animals is very modern.

Currently, the development and application of new plant protection products that are nontoxic to humans and animals is of global importance. research into the development of pesticides based on chemical compounds that have high efficiency, selectivity for the objects of use and rapid degradation in the environment.

Republic Uzbekistan Of the of "On organizational measures to reform fruit and vegetable production and viticulture." Significant funds were allocated for the solution of these goals, support was provided to horticultural farmers and the result has borne fruit. Horticultural products from Uzbekistan are in demand on the world market. Currently, the export of food, fruit and vegetable products totaled about \$ 5 billion. Over the past three years, the volume of exported agricultural products has more than tripled. Our country sends to 80 countries of the world more than 180 types of selected fruits and vegetables and products made from them. Uzbekistan is among the top ten countries in the world - leaders in terms of exports of apricots, plums, grapes, nuts, cabbage and many other types of fruits and vegetables [14].

In the 21st century, the FAO experts recognized the leading concept of integrated plant protection in solving the food problem [11].

To maintain the potential for environmental resilience of plants, including their resistance to pathogens, the use of pesticides should be minimized. Particularly dangerous for plants are organophosphate insectoacaricides, which can block the work of important redox enzymes responsible for environmental resistance, including pathogens [10].

The requirements for the registration of pesticides are increasingly increasing, as in the United States more than 1200 active pesticide substances are registered and 20,000 drugs worth \$ 12 billion are in circulation every year. Since 1988, under the auspices of the Environmental Protection Agency, pesticides have been systematically re-registered in accordance with the new requirements, so it improves the quality of the range of pesticides [2]. In the EU countries, it was decided to support 463 from the list of 967 pesticides. 429 drugs are not subject to re-registration, 48 are included in the list and 27 are excluded [12].

MT Petrukhin [5] conducted an experiment using entobacterin in a mixture with Bordeaux liquid, on the 12th day of the experiment, the efficiency was 98.8%. OZ Metlitskiy [5] proved the high effectiveness of the use of biological products against the American white butterfly. In 1986-1987, the employees of the Institute of Zoology of the Academy of Sciences of Ukraine used lepidocide against the pests of the garden at a rate of 1.5 kg / ha, the efficiency was 84.0-90.0% [9].

So far, a complete rejection of the chemical method in orchards and vineyards is not possible, but as a result of the reorientation of farms towards biosecurity, the consumption of pesticides is reduced by three times [4]. The

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feasibility of using biological means of protection is also confirmed by an increase in the profitability of production, in Primorye, for example, the profitability from the chemical method was 19.5%, from the combined use of biological and chemical - 26%, and from the biological method, the profitability was already 36.7% [1, 13].

PLACE AND METHOD OF RESEARCH

Insectoacaricide Alfa Toro, 15% c.c. tested in an intensive semi-dwarf apple orchard of the "Golden Sun" farm in the Kibray district of the Tashkent region. The zone is located in the foothill farming zone. The orchards were laid 5 years ago, apple trees of the Golden Delicious variety on the M7 rootstock.

The treatments were carried out using a tractor sprayer "Agroma 2000", with a calculated flow rate of the working fluid of 1000 l/ha. The experiments were carried out in the morning hours, from 7 am to 8 am, when the air temperature did not exceed 28 °C and the wind speed was 1 m/sec.

The establishment of the experiments, subsequent accounting and calculations of biological efficiency were carried out in accordance with the "Methodological instructions ..." (2004), approved by the State Chemical Commission of the Republic of Uzbekistan [3].

TEST RESULTS

Insectoacaricide Alfa Toro, 15% c.c. has been tested against the codling moth. When processing at a consumption rate of 0,2 l/ha, the analysis of the harvested apple fruits showed that when using this preparation, the decrease in damage to the removable crop relative to the control was 95,1%, and the gross - also 94,3% of the crop (see table). ... These results are also on the same level with the indices of the reference variant, where Nurell-D was used at a consumption rate of 1,0 l/ha, here the decrease in damage to the fruits of the removable crop was 89,1%, and the gross -89,1% (see. table). Thus, insectoacaricide Alfa Toro can be included in the "List ..." for use against the codling moth on an apple tree at a rate of 0,2 l/ha.

Table

Biological effectiveness of the drug Alfa Toro against the codling moth on an apple tree

production experience, 05/12/2021, Tashkent region, Kibray district

Nº	Variants	Consumpti on rate of preparatio ns I/ha	DCS.			Fruit damage,%			Decrease in crop damage in% to control	
			Carrio n	Harv removabl e		Carrio n	removabl e		removabl e	gross
1	Alfa Toro, 15% h.c.	0,2	14,6	154,2	168,8	4,2	1,8	3,0	95,1	94,3

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2	Nurell-D, 55% ae. (reference)	1,0	18,2	128,4	146,6	7,4	4,0	5,7	89,1	89,1
3	Control (no processing)	-	57,6	77,8	135,4	68,2	36,8	52,5	-	-

CONCLUSIONS

Insectoacaricide Alfa Toro, 15% c.c. showed high efficiency against the codling moth on an apple tree at a consumption rate of 0,2 l/ha. We include insecticide recommend to insectoacaricide Alfa Toro, 15% c.c. for use against the codling moth on an apple tree at a consumption rate of 0,2 l/ha.

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