

## **EFFECT OF THE CHEMICAL SUBSTANCE PYRENEX ON APPLE FRUIT IN INTENSIVE FRUIT ORCHARDS**

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### **ABSTRACT**

#### **Annotation**

It consists in improving the forecasting and monitoring system of damage, development, spread of the apple borer in intensive fruit orchards, and improvement of control measures based on it. To achieve this goal, the following tasks have been defined: Determination of the features and characteristics of protection of intensive fruit orchards from apple fruit borer. Studying the agrotechnics of apple growing in orchards. Monitoring of bioecological characteristics of apple fruit feeder. Development of methods for planning requirements for biological and chemical protection of apples grown in agriculture.

**KEYWORDS:** Intensive garden, apple fruit eater, pheromone trap, pest, butterfly, caterpillar, golden eye, bioproduct, chemical preparations, biological efficiency, pest density, economic damage quantity criterion.

### **INTRODUCTION**

#### **Enter**

The year-by-year increase in the demand for food products in the world requires the further expansion of the production of agricultural crops and the constant supply of high-quality food products.

USA and Turkey are the leading European countries in the production and export of apple fruits in the world, while China and Iran are achieving high results from the Asian continent. However, in years with high rainfall, low temperature and high humidity, apple orchards lost up to 90.0% of the crop due to pests. For all the countries of the world, it is one of the urgent issues of today to carry out scientific researches in the priority areas such as the bioecological characteristics of apple frugivorous pests in apple orchards and the creation of modern measures to combat them, in order to increase productivity and improve the quality of fruit.

In the republic, it is necessary to pay special attention to the diseases that occur in apple orchards, which are grown on the basis of intensive technologies, and to increase their productivity.

Based on these tasks, it is necessary to improve modern control methods against apple borer in orchards, use an automated system of forecasting and their control, and wide introduction into agricultural production. On the scale of our country, 8-10% of intensive orchards are established every year, and apple orchards make up a large part of it.

### **RESEARCH OBJECT AND METHODS**

Improvement of the chemical control system based on the study of damage and development of apple fruit borer in the conditions of Andijan agricultural experimental field of Andijan region.

The research was carried out using methods adopted in plant protection. It was done with the help of

V.V.Yakhontov's methods of creating a phenocalendar and the methods of a number of scientists Bei-Bienko, G.Ya.Bondarenko, N. V. Glushchenko. The methodical instructions of Sh.T. Khojaev were used for biological, economic and economic efficiency of pesticides. In determining the biological efficiency, Abbot's formula was used, dispersion analysis of the obtained results was carried out using the method of B. Dospekhov (Metodika polevogo opita). Field experiments were conducted in 2020-2021, and Pynex, 48% em.k (1.5-2.0 l/ha), insecticide was used in our experiment.

### Scheme of the Experiment

- Control (no operation)
- Model Perfecto 17.5% sus.k
- Model Aikido 5% em.k
- Experiment Pynex, 48% em.k

The economic effectiveness of chemical control of apple pests was determined using A.F. Chenkin's method. The net income was calculated based on the following formula.

$$C = -$$

Here Sf is net profit, soum;

$X_N$  - the price of the harvested crop, soum;

$X_{ar}$  - all expenses, soum.

Profitability is calculated as follows

$$= / 100$$

### Biological efficiency of pesticides used against apple fruit borer

Tabel 1

Options (Name of Drugs)	Drug Consumption, L(Kg)/Ha	Average Number of Worms in Ten Trees				Biological Efficiency in Days, %		
		Spray Medicine Before	After Spraying, By Days			3	7	14
			3	7	14			
Control (idle)	-	49	53	55	57	-	-	-
Perfecto 17.5% sus.k	0,3	54	16	14	12	70,3	74,0	77,8
Aikido 5% em.k	0,4-0,8	56	18	15	11	68,0	73,2	80,3
Pirnex 48% em.k	1,5-2,0	55	10	7	5	81,8	87,2	91,0

## RESEARCH RESULTS AND THEIR DISCUSSION

According to the results of the scientific research carried out in the conditions of the "Ulugbek Bogglari" farm specializing in horticulture in the Pakhtaabad district of Andijan region, the bioecological characteristics and damage of the apple fruit eater *Carpocapsa pomonella* were studied and the criterion of the amount of economic damage (IZMM) is studied. The fruit-eating butterflies that landed on the Feramon traps were counted. Actions are planned to combat the apple borer.

78.0% biological efficiency was achieved when we distributed golden-eyed entomophage in a ratio of 1:10 against apple fruit borer eggs and 1-2-year-old worms.

In our experimental version, Pirinex, 48% em.c (1.5-2.0 l/ha), was treated with 81.8% biological efficiency on the 3rd day of the calculation day, and 87.2-91.0% on the 7th and 14th days.

### Summary

Modern Pyrinex, 48% em.k (1.5-2.0 l/ha), control of apple fruit borer *Carpocapsa pomonella* by determining the number and duration of seasonal treatments in the conditions of horticultural farms, using chemical means methods will be improved and it will be possible to save the crop.

### REFERENCES

#### List of Used Literature

1. Decree of the President of the Republic of Uzbekistan dated March 29, 2018 No. PQ-5388 "On additional measures for the rapid development of fruit and vegetable growing in the Republic of Uzbekistan"
2. Decision No. PQ-3978 of the President of the Republic of Uzbekistan dated October 17, 2018 "On additional measures to increase the efficiency of the export of fruit and vegetable products to foreign markets".
3. Armor V.A. Field experience methodology (with the basics of statistical processing of research results). -M., "Kolos", -1979, -S - 416.
4. Khojaev Sh.T. Methodological instructions for testing insecticides, acaricides, biologically active substances and fungicides (II edition). - Tashkent: Kom-DAR, 1994 - 2004. 103 p.
5. Chenkin A.F. Metodika opredeleniya ekonomicheskoy effektivnosti ispolzovaniya v selskom xozyaystve rezultatov NII i opitno-konstruk-torskix rabot, noviy texniki, izobreteniy i rasionalizatorskix predlojeniy NTS MSX SSSR. // -M.: VNIITEISX, -1979. - 7. - 27 s.
6. Abbot W.S. A method of computing the effectiveness of an insecticide //J. Econ. Entomol. – Vol. 18. – 1925. - N 3. – pp. 265-267.

