ISSUES OF PROTECTION FROM THE MULBERRY MOTH (GLYPHODES PYLAIALIS WALKER.) IN THE DEVELOPMENT OF MULBERRY

Numonov Nozimjon

Assistant, Andijan Institute of agriculture and Agrotechnology

Abstract. In this experiment, we tried to reveal the mechanisms of effective mechanical control of the mulberry moth and effective elimination of pests. By applying the mechanical method to the mulberry tree, ecologically pure products were obtained. Including the mulberry silkworm, no negative aspects of growth development have been identified.

Keywords. Biological method, mechanical method, Bracon hebetor, Chrysopa carnea Steph, desis, siperfos, mushroom.

Climatic conditions and existing potential of our country is an important factor for further development of cocoon farming in the future, like every branch of agriculture. A number of practical works are being carried out to effectively use these opportunities, ensure employment of the population in rural areas, increase the export potential of the sector, increase the assortment of our silk products on the world market and increase their competitiveness. Currently, in the cultivation of mulberry seedlings, it is necessary to sharply increase its productivity, improve the quality of products, and increase the volume of preparation of a number of products from it, to fully supply the population and the processing industry with raw materials, and to produce high-quality products. For the further development of mulberry cultivation, it is necessary to constantly improve the agro-techniques of care, to adapt them to modern techniques and technologies, as well as to protect them from pests, diseases and weeds found in mulberry fields.

In the cultivation of mulberry seedlings, it is especially important to carry out agrotechnical measures on time, to determine the norms of watering and

fertilizing. By starting the cultivation of mulberry seedlings in our republic, it is possible to increase the problem of mulberry silkworm feeding in sericulture in our country, and to increase the production of vitamin-rich fruit products. At the same time, cocooning is one of the important branches of agriculture and provides raw materials for light industry. Since time immemorial, mulberry trees have been planted around crop fields, roadsides and ditches, and in the form of special plantations. In addition to being food for silkworms, mulberry trees protect cotton fields from soil erosion, plants from heat and other effects, and protect the banks of irrigation facilities from erosion. In this case, the trees located around the trenches are tall and serve as a source of leaves for the cocoon worm, as well as fortifying and protecting the surrounding field from the strong winds that blow frequently. In the cultivation of mulberry seedlings, the issue of protection from harmful organisms occupies a key place. Spider mite, thrips, comstock worm, and the mulberry moth, a gnawing mulberry caterpillar, cause damage to the mulberry plant. Currently, the biggest threat among them is the mulberry moth, which is of quarantine importance. Mulberry moth (Glyphodes pylaialis Walker.) is a pest insect whose caterpillar feeds only on mulberry leaves. In particular, it causes serious damage to mulberry trees, sprouts and leaves. A fully developed insect. Adult caterpillars hibernate under the tree barks in a hammock made of special silk. In the spring, it turns into a bulb, and after 15-20 days, butterflies fly out of it. The butterfly is small, its wingspan is 15-17 mm, and its wings have transverse lines. Each butterfly (2-3 per mulberry leaf) lays an average of 50-60 eggs. Hatched worms eat and damage the mulberry leaf tissue. Damaged tree branches dry up, frost resistance decreases. It gives birth 6-7 times a year. The worms of the last generation hibernate in October and November. The mulberry moth (Glyphodes pylaialis Walker.) began to spread especially in the southern region of Uzbekistan since 1993. Since the development of the mulberry moth occurs mainly after the feeding of the silkworm, this process is not affected. But due to damage to the

leaves that have grown later, the length, thickness and resistance to winter cold will decrease. In all areas where the mulberry moth is spread, the damage that this insect can cause to mulberry is increasing. Therefore, it is required to prevent the spread of this insect through internal quarantine measures. Currently, the integrated system of plant protection is widely used. Control measures against the mulberry moth are as follows: Against the mulberry moth.

Biological control method. As the mulberry moth is a new insect in the Ferghana Valley, its specialized natural habitat has not yet been identified. However, omnivorous carnivores such as golden-eyes, nabis kandala, bees, and many species of birds are very important. In addition, trichogramma (Trichogramma sp.), bracon - Bracon hebetor Say and gold-eyed (Chrysopa carnea Steph.) can be wisely used as biomaterials propagated in biolaboratories. In order to reduce the damage of mulberry moth worms to 55-65%, starting from the second generation of the moth, the ratio of golden-eyed and bracon mature breeds to mulberry moth worms is 1:5 and 1:10, and 2-3 times against each generation of mulberry trees, depending on the effect. it is necessary to stand. Some difficulties arise when biological control is carried out. In particular, it is necessary to know the exact time when fighting poachers, early combating poachers will cause the mulberry moth to die before its larvae can find it. If it is planted later than the deadline, the larva will enter the inner part of the leaf and protect itself. The effectiveness of biological control is 56%.

Mechanical fighting method. In our experiment, in order to protect mulberry leaves from pests, it was found that tying the trees from the first ten days of June to the base of the main branches and secondary branches with belts from old cloths and bags gives a good result. For this purpose, if the belt is dipped in any insecticide solution on the sheep, following the safety rules, it will be the same: ciperfos (0.15%), uzfen (0.1%), simbush (0.02%), desis (0.05%), etc. The mulberry moth crawls out of the twisted cocoon to become a cocoon and seeks shelter. The worms enter these old cloths and sacks and are killed by

the pesticide. In addition, you can also apply an insecticide to the belts. Belts that have been used without medication should be inspected once a week, otherwise it has been found that the mulberry tree can be severely damaged by using it as a place for the mulberry moth to turn into a mushroom. In addition, it is also good to remove the mushrooms by placing cloths at the base of the branches of the mulberry tree. It is recommended to use this method not only in households, but also in farms. The most important thing is to cut off all branches and branches of mulberry trees while feeding silkworms. The uncut mulberry tree and its branches served as a habitat for the next generations of the pest and for its reproduction. In the fall and winter season, collecting fallen leaves, branches, and dried mulberry plants from the field will cause the death of the overwintering mulberry moth generation and serve for a sharp decrease in the number of overwintering offspring. It is very important to check the branches brought to feed the silkworms before giving them for food, and to collect and kill the detected moths. In this case, biting damage of some cocoon worms is also prevented. The efficiency of mechanical control was 88%.

In conclusion, mechanical control is slightly cheaper than biological control. Compared to chemical control, ecologically pure products are obtained, and in terms of efficiency, it was found that it is better than all control.

REFERENCES

1. 2022 2. Хўжаев Ш.Т. – Умумий ва қишлоқ хўжалик энтомологияси ҳамда уйғунлашган ҳимоя қилиш тизимининг асослари. Тошкент 2019й.

2. Abdullayeva X.Z., To‘xtasinov S.X – Tut ko‘chatlarini yetishtirish texnologiyasi / SCIENCE AND INNOVATION International Scientific Journal Volume 1 Issue

3. Xolmurod o‘g E. T. et al. TUT PARVONASINING SISTEMATIKASI UNI MONITORING VA BASHORAT QILISH //JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH. – 2023. – Т. 6. – №. 9. – С. 144-147.

4. Xolmurod o‘gli E. T. et al. TUT PARVONASINING MARKAZIY OSIYODA TARQALISHI //SUSTAINABILITY OF EDUCATION, SOCIO-ECONOMIC SCIENCE THEORY. – 2023. – T. 1. – №. 11. – C. 130-133.
5. Bekzod dilmurod o‘g‘li A. FARG‘ONA AGROTSENOZLARI PARVONASIMON KAPALAKLARINING BIOEKOLOGIK XUSUSIYATLARI VA XO ‘JALIK AHAMIYATI //SO ‘NGI ILMIY TADQIQOTLAR NAZARIYASI. – 2023. – T. 6. – №. 9. – C. 91-92.