

Comstock Worm (*Pseudococcus Comstoki*) Biological Characteristics of the Spread in the Andijan Region

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Annotation: *This paper makes analyses of the Comstock worm (*Pseudococcus comstoki*) biological characteristics of the spread in the Andijan region. On this case, research has been pinpointed from both theoretical and methodological points as the whole. Research has concluded with vivid analyses of the outcomes and shortcomings as the whole.*

Key words: *Comstock worm, *Pseudococcus comstoki*, biological characteristics, Andijan region.*

Introduction

The Comstock worm was first discovered in Uzbekistan in 1939 in the Tashkent region on a mulberry tree . He is very dangerous, because of the pest insect, which has a quarantine significance, it was not possible to get lost despite the measures taken immediately against him. On the contrary, it very quickly adapted to local conditions, and also planted fruit trees in other districts of the Tashkent region.

The Komstok worm is a two-sex animal belonging to the category of insects of the equal-winged constellation of hyacinths, coccids subspecies (Homoptera, Coccoinea). From their appearance, males and females differ sharply from each other. Females without wings, the body is Oval, 5-6 mm long, the navel is covered with a white wax curtain. On the head of the worm there will be a long stuck sucking Khartoum. Males are much smaller 1,5 mm in size, reddish-brown in color, the navel is formed from parts of the head, chest and abdomen. On the chest are visible a pair of wings, three pairs of legs, a pair of long shoots in the mortar of the bladder. There will be no men's charter. He will die quickly, without nutrition, after he is joined by a female.

It is known that during the period of historical development, monophages, which are fed only by the same plant in living organisms, oligophages, which are fed only by their genus, belonging to certain families of plants, polyphages, which are fed by different plants, are formed. Due to the fact that polyphages were able to feed on plants that were in the same

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place, even when they fell into different countries, they spread to different continents and countries of the planet, except for their homeland. The fact that the Komstok worm is also a polyphag according to its nutrition, it has already moved to many countries of the world through such means as seedlings, flowers, fruits, vegetables .

The chemical measures, quarantine measures, which were used in the early days against this worm, which the worm came to Uzbekistan, he did not give the expected result. As a result of this, he went to the regions of other vloyats of our republic, as well as the republics of Central Asia, Kazakhstan, Georgia, Azerbaijan, Armenia .

In Uzbekistan, the famous coccidologist on the study of the Comstock worm A.The scientist, who started his work, D Arkhangelskaya, described the spread of this worm in different regions of Uzbekistan, some biological features. And then from the homologues P.P Arkhangelsky. Komstok published materials on some biological properties, nutrition of the worm. However, later studies on the study of coccids almost stopped, finally, professor R.A.Olimjonov began his research on the study of the importance of Leukopis Pasha in reducing the quantitative density of the Komstok worm. The spread of the Komstok worm in Uzbekistan, biological characteristics of A.N.Elizarova, A.K.And Sonina studied the entomophages of these worms and their effectiveness in reducing the number of Comstock worms.

B. on the study of coccids distributed in Tajikistan.Bozarov, who conducted research. It provides information on the prevalence of 95 species of coccids in trees and shrubs on the southern sides of the Alder mountain, shular in komstok worm also feeds on various organs of plants. M. Nurmamatov and others have published materials on the ecological, biological characteristics of this worm in Tajik conditions, giving it three generations a year, its worms.

In 1970-80 years on the study of fruit plant cockcases in the eastern Fergana region K.In his work conducted by Zakirov, he found out that this worm meets on fruit and some landscape trees in all places where studies have been conducted. However, over the next decades, the work on the study of this insect has ceased. For this reason, among the objects of our research, we also included the komstok worm and planned such tasks as its spread in our region, its damage to the plant by the presence of feed plants, the linkage of the worm with the nutrient plant. Below are some of the materials obtained from our research work that we have carried out.

In order to study the spread of the Komstok worm, we found out that the komstok worm spread in the fruit gardens, alleys, streets and some apartments in the Andijan, Asaka, Bulukbashi, Boz, Izkankan, mercy, Khodzhabad districts in our research conducted on the study of coccids in fruit and landscape plants, which are the cities of Andijan region. In our observations, we found that the Wolf is a favorite nutrient plant from fruit trees, such as Mulberry, fig, pomegranate, peach, poplar, maple, Maple, etc., the insect feeds on these plants in places such as their bodies, branches, branches and leaves.

In the literature, it is shown that the komstok worm lives three generations a year. In our observations, we found that the Komstok worm winters in the ovary period. In autumn borganda the female lays yellowish eggs on the toad, similar to the white fabric that separates it from the body of worms. In early spring, when the days are warm, the larvae from the eggs come out and feed on the twigs and branches of the plant. The larvae and females of the Komstok worm live a life of absolute sucking of the tissue fluid of the plant, which leads to the covering of Mulberry branches and leaves. In the literature, it is shown that this worm

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does not only harm the plants in the Oasis, but also in some cases also meets on fruit trees in the foothills and foothills. The worm lives by sucking the juices from the tissue that pierces the bark of the nutrient plant with a long stuck – sucking charter. During feeding the insect falls into the cells of the plant tissue from its Khartoum to the saliva. Since the salivary composition consists of free amino acids, amino acids primarily accelerate the movement of plasma in plant tissue. As a result, the absorption of water in the tissue is disturbed. Also in damaged plants, the processes of urination, breathing, photosynthesis are disrupted. As a result, the damaged plants are left behind from growth, development, turn yellow and dry. It was found that the activity of catalase in mulberry leaves infected with the Komstok worm was significantly lower than in healthy leaves, due to the decrease in the number of satchels, yellowing of such leaves was detected A.Elizarova and others found that the leaves from the Mulberry damaged by the komstok worm decreased by 67 prosents, the number of leaves from the Mulberry damaged by the average, the quality of which decreased by 262 kg, the yield from the mulberry tree every 1000 PCs.

In the following years, attention has been paid to the use of biological combat measures in the fight against the Komstok worm. As a result, it was found that in local conditions there are three species of free-wheeler and predators that reduce the number of these worms. In the development of effective measures to combat this pest, its prevalence, the study of the links between the worm and the plant in local conditions is of great importance.

Conclusion

Although studies on the study of the Komstok worm in Uzbekistan have yielded effective results, we still believe that studies on the fauna of coccids, their connections between feed plants and free-standing predators are not enough. Therefore, we will focus our turn research on the above problems.

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