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EFFECT OF MULBERRY SILKWORM FEEDING ON DISEASED MULBERRY LEAVES ON WORM VIABILITY AND COCOON PRODUCTIVITY

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ABSTRACT: - In the case of rearing silkworm caterpillars, the caterpillar does not feed well with infected leaves, which leads to a decrease in the number of cocoons (73-76%) during the transition by instars, the larval stage lasts, the extension of the fifth instar compared to the growth options (89%). It turned out that the yield of cocoons decreased by 13-18% and 1 box decreased by 21-25 kg.

KEYWORDS: Mulberry tree, stem, mulberry leaf, feeding, microorganisms, disease, actinomycetes, environmental factors, dehydration, lighting, survival, continuation of the worm period, cocoon, harvest.

INTRODUCTION

It is known that in the tasks set by the Decree of the President of the Republic of Uzbekistan dated January 17, 2020 No PQ-4567, the expansion of mulberry trees in the Republic, the use of water-saving irrigation technologies in mulberry growing. And to stimulate the effective implementation of agro-technical measures, increase the food base of the silk industry through the widespread introduction of innovative ideas, scientific developments and scientific achievements, increase the production of export-oriented products.

The Uzbekpaksanoat Association, together with local authorities, monitors the establishment of mulberry groves by silkworm organizations. The results of the monitoring are discussed once a year by the district councils of people's deputies and mulberry trees are planted throughout the year. a decision shall be made to suspend the validity of tax benefits and preferences applicable to land tax in accordance with the legislation for non-established silkworm enterprises. Systematically: organizes the development, implementation and monitoring of regional programs for the establishment of new mulberries in the regions, the renewal of obsolete mulberries, the organization of cocoon growing seasons, weekly with the heads of district sectors, relevant local authorities organizes meetings with silkworm organizations to identify and eliminate problems in the cocoon industry, and visits to the homes of cocooners during the cocoon growing seasons.

THE MAIN FINDINGS AND RESULTS

Mulberry trees suffer from a variety of diseases during their growth and development. These diseases are caused by bacteria, viruses, fungi, mycoplasmas, actinomycetes, and their damage is increasing year by year. To date, more than 100 mulberry diseases have been identified, and most mulberry trees are planted along roadsides, ditches, ditches, and fields, which are contaminated with dust. Under such conditions, scientists have conducted a series of experiments on the presence of harmful microorganisms on mulberry leaves, the disease of nutritious mulberry leaves, the causes of the disease and their negative impact on leaf yield, and measures to prevent and combat them. Certain practical recommendations are given.

Of these, about 20 species of wilt fungi are the most common, of which 7 species are found in mulberry, and the trees planted in rows around the fields will have a favorable environment for the development of fusarium species due to environmental conditions in the southern regions. Studies have shown that mulberry fusarium wilt in Ukraine and Central Asia causes dryness of mulberry twigs in the bush mulberry due to tracheominosis type disease, and 20 tons of manure, 60 kg of nitrogen per 1 hectare of mulberry per year to combat it. Says 30 kg of phosphorus should be added.

Consequently, the amount of water in mulberry leaves plays an important role in the activity of silkworms, as 85-88% of the worm’s body is water and receives the necessary water, protein, vitamins and other substances

only from mulberry leaves. This means that how much silkworms eat and digest in a given leaf depends on the amount of water in the leaf, whether the leaf is wilted or not. a flat skin shed, high viability, cocoon wrapping process, and cocoon maturation were shortened to 2 days.

In fact, when silkworms are fed mulberry leaves, the larval period is reduced by 1-2 days, the live cocoon and its silk weight increase by 4.6-4.7%, and the total number of cocoons wrapped by 5.1-5.4%. 'was found. Many years of research on silkworm rearing technology have shown that mulberry silkworms consume a lot of such leaves if they are watered in a timely manner during the summer to reduce dehydration and nutrient depletion and increase its nutritional value. The number of larvae decreases rapidly, passes from age to age in time, and the cocoon yield per box of worms is 55-60 kg, regardless of the summer season, regardless of the size of the worms.

In addition, research has shown that diseases are caused by changes in the environment due to high or low environmental factors. Experiments have shown that mulberry leaves are exposed to sunlight, that tree trunks become diseased due to dehydration and lack of light, and that the plant is poisoned by air.

From the above data, it can be seen that mulberry tree diseases have a negative impact on the development and yield of mulberry leaves, reducing its nutritional properties. However, when silkworms are fed with infected mulberry leaves, their development, viability, prolongation of the worm cycle, and their effect on cocoon yield have not been well studied.

Therefore, in order to shed light on this issue, experiments were carried out to determine the viability and prolongation of the worm period, silkworm weight and cocoon yield when silkworm hybrid and foreign hybrid worms were treated with mulberry leaves infected with fusarium wilt and powdery mildew. We have learned the secret. The data are given in Table 1.

Table 1

Feeding silkworms with diseased mulberry leaves changes their survival, the effect of prolonging the worm cycle and the productivity of the wrapped elephants.

(The experiment was conducted in the laboratory in Bekabad district of Tashkent region in 2022)

Disease Name	Worm survival,%	Prolongation of the worm cycle, days	Total cocoons,%	Weight of one cocoon, g X ± Sx	1 box worm yield, kg	Pd
Fusariosis	78	28	76,0	1,53±0,05	52,3	0,991
Un-shudring	74	32	71,0	1,45±0,04	47,5	0,994

Sick mulberry leaves	93	23	88,0	1,92±0,03	72,0	-

1The data in the table show that the survival rate of silkworms when fed with mulberry leaves infected with fusarium wilt is 78%, when fed with mulberry leaves infected with flour-dew disease, this figure is 74%, uninfected pure mulberry results in a 15–19% decrease compared to the leaf-fed comparative variant (93.0%).

CONCLUSION

Worms fed on diseased mulberry leaves do not eat the leaves well, their age decreases with age, the total worm period lasts 6-10 days, and the feeding period is 28-32 days. As a result, the fifth age remains on hot days, the leaves become rough and the number of cocoon-infested worms decreases (71-76%), compared to the comparative variant (89.0%) by 13-18%, the weight of one cocoon is 1, At 45–1.53 g, it was found to be 20.5–24.5% lighter than the comparative variant (1.92 g). Such a decrease in cocoon weight and biological parameters also affected the cocoon yield from Box 1 worms, and the yield in the experimental variants was reduced by 20–24 kg.

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