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Fozil Mukhammadievich Boyjigitov

Research Institute of Viticulture and Winemaking
Ph.D., senior researcher,
Horticulture named after Academician M. Mirzaev,
Tashkent, Uzbekistan
fboyjigitov80@mail.ru

LEAF DISEASE OF PEACH

Abstract: Against moniliosis disease of peach Straj KS (0.4-0.6 l/ha) fungicide was tested. High biological efficiency (up to 90.4%) was achieved during timely chemical treatment with working solutions of these fungicides. As a result, it has been proven that the harvest from the trees is protected from diseases and the quality and quantity of the fruits increases.

Key words: peach, tree, leaf, disease, moniliosis, chemical treatment, fungicide, biological efficiency.

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Introduction

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In the republic, peach trees are being cultivated in large areas among fruit orchards. This, in turn, causes widespread spread of diseases in grain orchards and great damage to productivity, as well as a number of problems in fruit cultivation.

Correct and timely organization of protective measures is important for protecting the grown crops from various diseases, storing them, and delivering them to the table in good quality.

The method of chemical control against harmful organisms is considered one of the main measures, and it is fast and highly effective. In the fight against fungal diseases of fruit trees, determining the rate and timing of the use of modern fungicides provides an opportunity to dramatically reduce the number of diseases.

Peach leaf blight disease is widespread in all places, that is, in Germany, Bulgaria, Poland, Romania, Italy and Spain, as well as in Uzbekistan [1, 3, 4, 12, 14].

Peach leaf blight disease appears in early spring: young leaves have amber or red-purple color and a wavy uneven surface, after 10-12 days fungal spores with a white coating appear on the underside of the

leaf. The leaves are not brittle, and when a severe disease develops, the swellings turn brown and fall off. When defoliation is strongly developed, it becomes bare at the end of May, nothing grows and does not produce. Branches crack, thin and turn yellow and dry. Infected fruits have wavy swellings and changes in shape [7, 3].

Peach leaf blight disease *Taphrina deformans* Tul. caused by the fungus [10, 11, 12].

The trees become completely bare when the leaf blight disease develops strongly. This causes the buds to drop, and the crop to remain on the tree. Trees affected by the disease stop growing, and in the winter season, the trees get cold [8].

The fungus *Taphrina deformans* isolates on all peach trees, and during the growing season, fungal spores develop well on the buds or on the side shoots. In winter, they can be found between or inside the body. Experiments show that after the tissue dies under the influence of the fungus, it lives in a sprophybe state during summer and autumn, and goes to the countryside without ascospores. In Armenia, it is noted that the fungus that causes peach leaf blight overwinters in the form of spores [7].

In Moldavia, the fungus that causes peach leaf blight overwinters in the bud as a spore. Spore sacs can also be stored in shed leaves [9].

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In Ukraine, the fungus hibernates without mycelium and occurs as a spore in places where there is cracked glue [6].

In the fight against peach leaf blight disease; Bordeaux liquid containing copper is recommended. The first treatment is in the spring when the buds appear on the trees with a working solution of 1% or 0.75% Bordeaux liquid, the second chemical treatment is after the trees have fallen and the third chemical treatment corresponds to the period of leaves of trees [2, 5, 12].

Research location and methods.

The research was conducted in 2020 in the peach orchards of the Musamukhamedov Sahibi farm, Kibrai district, Tashkent region. The peach tree is 6 years old. The tested fungicide was applied to 5 trees in 3 returns. Chemical treatment 3 times during vegetation; at budding, after flowering and 14 days after 2nd treatment 1000 l/ha working solution was calculated.

The distribution and development of peach leaf blight disease was reported by Chumakov et al. [13]

and the biological effectiveness of the drugs tested against the disease was carried out by the methods of Khodjaev [11].

Research results.

The method of chemical control of diseases caused by fungi in peach orchards is fast and highly effective.

In 2020, Straj KS fungicide was tested against peach leaf blight at a consumption rate of 0.3-0.6 l/ha. As a model Horus s.d.g. fungicide was selected (table).

Horus s.d.g. (0.4 kg/ha) when the fungicide was used, the damage was up to 5% on the leaves, the disease development was up to 2.3% and the biological efficiency was up to 91.1%.

According to the results of the experiment, the fungicide Straj KS, which was used at a higher consumption rate of 0.6 l/ha, showed the highest effectiveness against peach leaf blight. In peach leaves, damage was 5.3%, and the development of the disease was recorded up to 2.5%, respectively. Biological efficiency showed up to 90.4%.

**Table 1. It has been used against peach leaf blight disease
Biological efficiency of the fungicide Straj KS
Field test-experience, Tashkent region, Qibray district,
"Musamukhamedov owner" f/x., Lola variety.2020y.**

№	Options	Application rate, kg/ha, or l/ha	Leaves		
			damage, %	disease progression, %	biological efficiency, %
1.	Control – (no chemical treatment)	-	45,7	26,3	-
2.	Horus s.d.g. (750 g/kg) (template) (cyprodinil 750 g/l)	0,4	5	2,3	91,1
3.	Straj KS (cyprodinil 500 g/l)	0,3	9,0	4,5	83,0
		0,6	5,3	2,5	90,4

0.3 l/ha against peach leaf blight disease. The biological efficiency of the tested fungicide at the consumption rate was low, i.e. 85.0% less than that of Straj KS. Disease damage was observed up to 9.0% on leaves. The development of the disease was up to 4.5%. Biological efficiency was recorded up to 83.0%.

Summary.

According to the obtained results, 3 times during the growing season with the working solutions of Straj KS (0.6 l/ha) fungicide against peach leaf blight disease; when the trees are budding, after the trees are flowering and after 14 days of the 2nd treatment, chemical treatment at the expense of 1000 l/ha working solution, the harvested crop is protected from the disease and the quality and quantity of the fruits increases.

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