

## YIELD OF VARIETAL MULBERRIES WITH DOUBLE OPERATION IN THE CONDITIONS OF THE KARSHI STEPPE

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### Abstract

The article discusses the results of a study of the leaf formation of various mulberry combinations during double use and it can be concluded that forage plantings in newly developed saline soils should be planted from varietal mulberries.

**Keywords:** variety, feeding, shoot, leaf, combination, vegetation, operation, leaf formation.

### Introduction

With the development of the Karshi steppe, wide opportunities opened up for the development of sericulture in this zone. We tested a series of mulberry varieties in order to select the best ones for cultivation on saline soils. The experiment was carried out in the Karshi district on newly developed lands.

In terms of the mechanical composition of the soil, it is typical of serozem with a chloride-sulfate type of salinization of medium degree. Promising varieties of mulberries served as experimental material: Katlama, Winter-hardy, Karshi-1, SANIISH-14 controlled zoned variety Tajik seedless.

The plantation was planted in 2017 according to the 6 x 0.5 scheme. In 2019-2022, two exploitations were carried out annually: in the spring, a complete cut of branches for mid-spring feeding and in the fall, the cutting of 1/3 of the length of the shoots.

During the period of spring operation, the size, weight and number of leaves were determined on the growth shoots of the main branches. 100 leaves were measured (25 in quadruple repetition).

The area of each was determined based on length, width, and a constant coefficient. The growth shoots of the varieties had 9-11 leaves (12 in the control). In terms of the number of leaves on one growth shoot, all varietal combinations are inferior to the control variety Tajik seedless 8.2-24.6%. According to the weight of one leaf in spring, two varieties are distinguished: Karshii-1 (2.64 g) and Katlama (2.32 g), exceeding the control by 7.9-22.8%. The Katlama and Winter-hardy varieties are inferior to the control in terms of spring leaf

weight. Summer leaves of the four combinations have a weight of 2.89-3.54 g, i.e. 10.7-35.6% more than in the control (2.61 g).

The largest mass of one leaf in summer is characterized by plants of varietal combinations Karshi-1 (3.54 g) and Winter-hardy (3.51 g).

In terms of the area of one leaf in the spring vegetation period, two varieties Katlama and Karshi-1 exceed the control by 4.6-11.3 (Table-1). The area of summer leaves is 102.7-140.3 cm<sup>2</sup>, i.e. 3.2-41.0% more than in the control.

The largest leaf area is observed in plants of varietal combinations Karshi-1 (140.3 cm<sup>2</sup>) and SANIISH-14 (130.2 cm<sup>2</sup>), it exceeds the control by 30.8-41.0%.

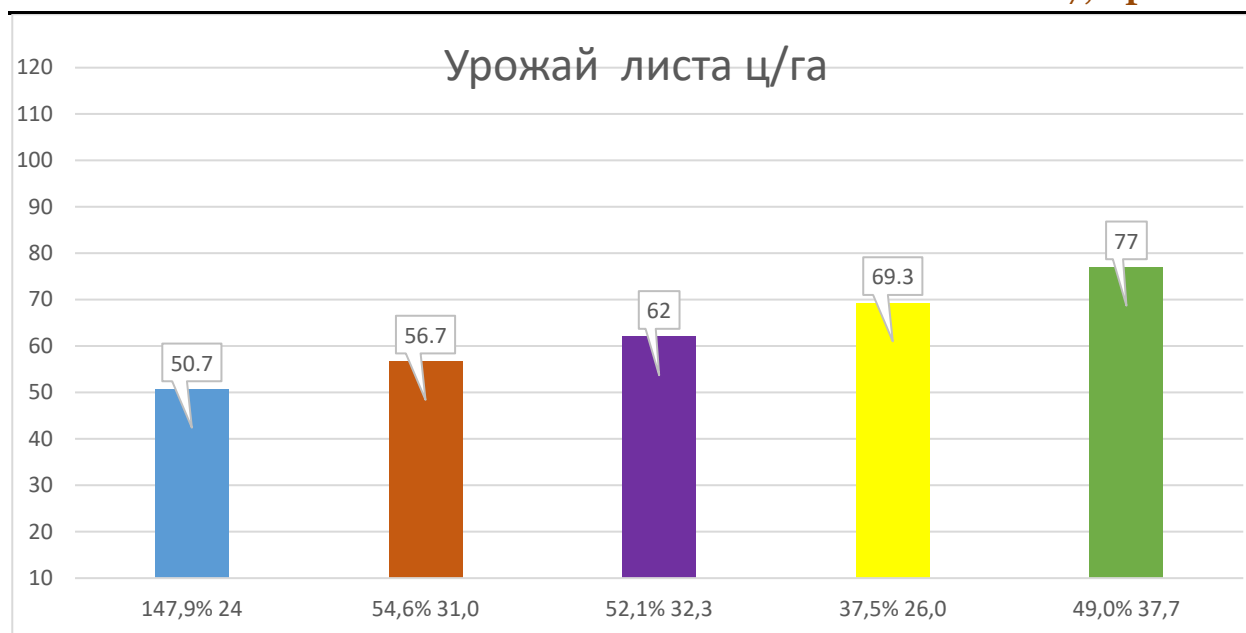
Thus, in terms of weight and area of one leaf in spring and summer, the Karshi-1 and SANIISH-14 mulberry varieties are distinguished.

**Table-1 Leaf area of varietal mulberry**

Sort	Spring		Summer	
	cm	% control	cm	% control
Katlama	76.5±2.5	88,43	102.7±6.1	103,21
Hardy	70.0±4.0	80,92	126.1±7.1	126,73
Karshi-1	90.5±3.0	104,62	140.3±8.9	141,00
SANIISH-14	96.3±6.5	111,32	130.2±9.0	130,85
Tajik Seedless (Control)	86.5±5.5	100,0	99.5±11.5	100,0

**Table-2**

Sort	Leaf yield cwt/ha			
	Spring	Fall	altogether	% Control
Katlama	50,66	24,0	74,0	84,4
Hardy	69,32	26,0	95,3	108,6
Karshi-1	77,0	37,70	110,6	126,1
SANIISH-14	62,0	32,3	94,3	107,5
Tajik Seedless (Control)	56,7	36,0	87,7	107,5



## Sort

Ratio (cwt/ha) of spring (lower rectangle) and autumn (upper rectangle) leaf harvest under double operation in the conditions of the Karshi steppe in mulberry varieties 1-Katlama, 2-Tajik seedless, SANIISH-14, 4-Winter-hardy, 5-Karshi-1. Spring (May 8-10), and in autumn (September 25-30) to teach the leaf harvest of these varieties. In the spring operation, 1.52-2.31 kg of leaf was obtained from one bush, the leaf yield was 33.8-40.18%, in the control 1.7 kg and 31.8%, respectively, in the autumn operation, respectively 0.72-1.13 kg and 55.1-63.2%, in the control 0.93 kg 58.99%.

The comparative yield of varietal mulberries of double exploitation is given in (Table-2).

Leaf yield from 1 hectare of wide-row plantation, depending on the varietal combination, varies from 50.7 to 77.0 centners per hectare in spring, and from 24 to 37.7 centners in autumn. In the autumn of repeated exploitation by cutting off 1/3 of the length of the shoots, a yield of 37.5-54.4% of the spring yield was obtained (Figure).

Thus, in the conditions of the Karshi steppe, with double operation, varietal mulberry yields from 1 hectare 74 to 110.6 centners of leaves, i.e. almost 1.5 times more than with a single one.

The highest yield is characterized by the varietal mulberry Karshi-1 (110.6 c/ha), yielding 26.1% more than in the control of the Tajik seedless mulberry.

The difference in mathematical processing is quite significant (Pd -0.996).

On the basis of a three-year study of leaf formation of various combinations of mulberries during double operation, it can be concluded that fodder plantations of newly developed saline soils of the Karshi steppe should be laid with varietal mulberry Karshi-1.

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**Refernces**

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