



Determination of the Feed Value of Leaves of Various Mulberry of Syrdarya Region

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Received: 2024 17, Sep

Accepted: 2024 27, Sep

Published: 2024 28, Oct

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Annotation: The article analyzes the results of studies on the creation of fodder plantations from the mulberry variety Jararik-10. The results obtained allow us to assert that the Jararik -10 variety is by all indicators the most productive, salt-resistant and adapted to the conditions of saline soils in the Syrdarya region. The variety exceeds the control in terms of leaf yield during double operation by 12.14%, cocoons by 13.01% and raw silk yield by 24%. Among the studied varieties, only this one can be recommended for widespread introduction of sericulture in this region.

Keywords: variety, leaf, caterpillars, shoot, cocoon, raw silk yield, test feed, leaf yield, cocoon yield.

In 2014-2015, we conducted feed trials to determine the nutritional value of the leaves of some mulberry varieties growing in the Syrdarya region on saline soils. The varieties Mankentsky, Winter-hardy, Zhararyk-10, Zhararyk-9, Tajik seedless (control) were subjected to two-fold use for spring and autumn feed trials of Ipakchi1-Ipakchi 2 caterpillars. For spring feeding, all shoots were cut from the bush plant, for autumn, leaves were taken only from the cut 1/3 of the upper part of the shoot, i.e. only the upper leaves were used for feeding. In spring, all leaves are food, and in autumn, the share of food from the total (biological) harvest is approximately 30%.

Of the total autumn harvest of the Zhararyk-10 variety, 32% was used for fattening, i.e. only its

feed part, the control variety - 39.4%, the Zimostoyki and Zhararyk varieties about 38%. Although only 27.6% of the leaves were taken from the Mankentsky variety, i.e. the best leaves were selected, the yield of raw silk was the lowest - 0.18 c/ha (0.21 in the control and 0.32 for the Zhararyk-10 variety).

Table 1 Productivity of mulberry varieties during spring exploitation (on average over two years).

Mulberry varieties	Forage leaf yield		Cocoon yield		Raw silk yield	
	c/ha	% to control	c/ha	% to control	c/ha	% to control
Mankent	52,80	74,42	4,41	65,53	0,76	73,08
Winter-hardy	68,64	96,74	6,41	95,25	1,07	102,83
Zhararyk-10	76,23	107,44	7,14	106,00	1,23	118,27
Zhararyk-9	60,39	85,12	5,53	82,17	0,89	85,58
Tajik seedless (control)	70,95	100,0	6,73	100,0	1,04	100,0

Table 2 Productivity of mulberry varieties during repeated (autumn) exploitation (on average over two years).

Mulberry varieties	Forage leaf yield		Cocoon yield		Raw silk yield	
	c/ha	% to control	c/ha	% to control	c/ha	% to control
Mankent	19,14	79,45	1,12	83,58	0,18	85,71
Winter-hardy	21,80	90,49	1,18	88,05	0,19	90,47
Zhararyk-10	30,35	125,98	1,98	147,76	0,32	152,38
Zhararyk-9	23,76	98,63	1,24	92,53	0,19	90,47
Tajik seedless (control)	24,09	100,0	1,34	100,0	0,21	100,0

Thus, we can talk about the high nutritional value of the leaves of the Zhararyk-10 variety. The yield of fodder leaf with double exploitation of the varieties varied from 71.94 to 106.6 c/ha. The main criterion for the final assessment of the economic usefulness of mulberry varieties or hybrids is their productivity, expressed in the yield of cocoons and the yield of raw silk per hectare of plantings.

The calculations show that with spring cutting of branches and feeding of caterpillars with this leaf, different indicators were obtained for the tested mulberry varieties in terms of their productivity (Table 1).

Only one of the varieties Zhararyk-10 surpasses the control variety in all productivity indicators: in terms of leaf yield - by 7.44%, cocoons - by 6.09% and especially in terms of raw silk yield - by 18.27%. Other varieties are inferior to the control variety in leaf yield by 3.26-25.58%, cocoons by 4.75-34.47%, and raw silk yield by 14.42-26.92%.

Thus, when studying the productivity of varieties during spring exploitation in the saline soil zone of the Syrdarya region, the best indicators were obtained for the Zhararyk-10 variety. Table 2 presents the characteristics of varieties by their productivity during autumn exploitation. The Zhararyk-10 variety also turned out to be the best in all indicators. Its leaf yield was 25.98% higher than the control, cocoons by 47.76%, and raw silk yield by 52.38%. Therefore, this variety can be recommended for repeated feeding in the fall. The obtained results allow us to state that the Zhararyk-10 variety is the most productive, salt-resistant and adapted to the conditions of saline soils of the Syrdarya region in all respects. The variety exceeds the control in leaf yield with double exploitation by 12.14%, cocoons - by 13.01% and in raw silk yield - by 24.0%. Among the studied varieties, only this one can be recommended for wide introduction in this region.

References

1. Абдуллаев У. «Тутчилик» Тошкент «Мехнат» 1991 й.
2. Рахмонбердиев В.К, Ражабов Н.О. Способы размножения сортового тутовника черенками в условиях Каршинской степи. Аграр соҳани барқарор ривожлантиришда фан таълим ва ишлаб чиқариш интеграцияси. Тошкент 2020.
3. Зинкина С.С. Сорта шелковицы. Повышения продуктивности кормовой базы шелководства. Т.1970
4. Ражабов Н.О. Оценка кормовых достоинств листьев новых сортов шелковицы по итогам выкормки тутового шелкопряда. Инновационные подходы в современной науке Сборник статей по материалам XX международной научно-практической конференции № 8 (20) Апрель 2018 г. Москва.
5. N.O.Rajabov, V.K.Raxmonberdiyev, B.U.Nasurillayev. Nutrition assessment of new created mulberry varieties. E3S Web of Conferences 244, 02051 (2021)
6. V.K Rakhmonberdiev, N.O Rajabov, Kh P Fozilova. Growing one and half year-old seedlings of mulberry hybrids in the condition of Kashkadarya region. EPRA International Journal of Research and Development (IJRD)
7. Ражабов Н.О. Влияние новых сортов шелковицы на жизнеспособности гусениц и урожайность коконов тутового шелкопряда. Бюллетень науки и практики. №6 2018 г 128-133 ст