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Scientific Basis for the Selection of Promising and New Mulberry Varieties on the Territory and in the Conditions of the Republic of Karakalpakstan.

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Annotation. The article presents the scientific basis of breeding mulberry varieties in the conditions of Karakalpakstan. Based on the results of the analysis, the economic effect of the methods of breeding mulberry varieties is determined.

Key words: organization, generative, vegetative method, climatic conditions, soil fertility, economic value

Research in the conditions of Karakalpakstan involves the propagation of fertile mulberry seedlings and special intensive mulberry plantations by ringing adult and annual branches of high-yielding mulberry trees.

Experiments of the farm "Sartbay Pirniezov", owned by LLC "Agro Pilla", Khojaly district of the Republic of Karakalpakstan, in open ground, by planting cuttings from annual branches from leafless ringed mulberry seedlings (horizontal), sowing according to the method of Sh. A. Muhammedzhanov and A. S. Didichenko, after the formation of roots, scientific work was carried out on the organization of the bush.

Using the methods of K. Rakhmonberdiev and R. Yu. Zvereva, the temperature dependence of rooting of cuttings in the Khorezm region was studied. The most interesting part of our research is that in the northern regions of our republic, when planting cuttings, the temperature was 14-160C, and it was also studied that different calendar periods coincided in other years..

Indeed, according to the data of the experimental plot, the warming of the soil in the root layer coincides with mid-April; ideal results were obtained during the analytical period of studies carried out over a certain period of time. it turned out to be about 60%. In field experiments, it was studied that air humidity should be at least 55%, soil moisture at least 70-75%, and attention to two indicators, namely temperature and soil moisture, will lead to good results in rooting cuttings.

When organizing a mulberry garden or mulberry rows, it is necessary to use methods developed by scientists for growing mulberry seedlings, following the experience of scientists, supported by practice. Mulberry seedlings are grown by seed (generative), vegetative and propagation methods.

One of the main tasks of sericulture is the gradual strengthening of the food supply of the silkworm based on the independent reproduction of seedlings. Mulberries are propagated sexually (from seeds) and asexually (by vegetative grafting, grafting and grafting) by the method. Mulberry propagation by seeds is one of the oldest methods. Sowing seeds is technically simple, and this method does not require much labor or money.

In fact, there is a certain disadvantage to growing mulberries from seeds. In particular, since the mulberry tree is predominantly dioecious, in its natural state some fertile female flowering trees are pollinated by other mulberry dust, and seedlings grown from such seeds are of poor quality. In addition, it is a long time to use the leaves of mulberry seedlings propagated from seeds for silkworms. When organizing a mulberry garden or mulberry rows, it is necessary to use methods developed by scientists for growing mulberry seedlings, following the experience of scientists, supported by practice. Mulberry seedlings are grown by seed (generative), vegetative and propagation methods.

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Seedlings sprouted from seeds need to grow 1 year in a nursery and 2-3-4 years in a newly planted area to form a tall tree, or 1 year in a nursery, 2 years in a nursery and 3-4 years in a nursery. a tall tree or a place planted in rows. When mulberries are grown vegetatively, the mother tree completely retains its hereditary characteristics. Leaves and fruits of grafted and grafted mulberries grown from cuttings can be used in the 2-3rd year. Through the use of grafting and grafting methods, it is possible to preserve its heredity through propagation from the remaining (mutated) mother tree, which has good characteristics under the influence of the external environment. However, it is impossible to preserve this variable genetic trait without completely changing it by grafting. Because the weld is within the weld, and vice versa, the weld influences the weld, causing one to partially change the other. The vegetative method has its drawbacks. For example, if the mother tree is infected with fungal diseases or weakened by pests, young seedlings propagated vegetatively from such plants may die or damage many other plants. Therefore, for propagation by vegetative method, it is necessary to select healthy, vigorous and high-quality mulberry trees. We have studied the advantages and disadvantages of growing mulberry seedlings using both methods. It is usually necessary to use both methods. Many mulberry seedlings and saplings are grown primarily by vegetative methods, which are propagated by seeds to transform low-yielding mulberries into high-yielding mulberries. When propagating mulberry seedlings from seeds, one- or one-and-a-half-year-old (young) seedlings are grown in the seed sowing area. Seedlings are cared for using this innovative agricultural technology. They are dug up and planted as permanent bushes or planted in the second part of the nursery to grow seedlings. To grow productive seedlings, seedlings are grown in a nursery one year, and in the second year they are grafted with productive mulberries.

It is grown for one year in the southern and middle climatic regions of Uzbekistan, for one and a half years in the northern regions, and in some (in the northern regions of Khorezm, Karakalpakstan and Navoi region) for 2 years. To grow a one-year-old seedling, seeds from the previous year are sown in the garden bed, and in the southern regions in the fall, it is recommended to sow mulberry seeds harvested this year in the fall to prepare seedlings. High-quality and healthy seedlings can only be grown if the seeds are planted and grown within the time limits indicated above.

Especially in the northern regions of our republic, for planting mulberry seeds and seedlings, fertile hilly soil, free from weeds, 1-1.5 meters below the level of seeping water and freed from alfalfa, located near irrigation canals, was selected. After the area prepared for planting mulberry seeds was cleared of other field crops, it was plowed to a depth of 35-40 cm using a rotary plow, mixing 150-200 kg of superphosphate and 5-10 tons of local fertilizers per hectare, before plowing no later than November 10 .

The number of seeds planted depends on a number of factors: germination, sowing technique, natural and climatic conditions, soil fertility, seed purity and percentage of germination, i.e. it depends on the economic value of the seeds. The economic value of seeds was calculated using the following formula:

Farm value % =((bruise %) / 100) purity %

Based on the economic value of the seeds, the sowing quantity was calculated using the following formula.

$$\text{Planting quantity} = \frac{kilogram\ percent}{economic\ value}$$

If the economic value exceeds 70% - 800 kilo percent.
With an economic value of 60-70% - 900 kilo percent.
With an economic value of 50-60%, it is taken at the rate of -1000 kilopercent.

In the conditions of the Republic of Karakalpakstan, taking into account the state of reclamation, the quality of seeds, i.e. the number of plantings per hectare of land, depending on the level of economic value, is:

With an economic value of up to 90-100% - 7-8 kg.
With an economic value of up to 80-90% - 8-9 kg.
With an economic value of up to 70-80% - 10-11 kg.
With an economic value of up to 60-70% - 12-14 kg.

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It is necessary to shape mulberry seedlings from a young age to ensure an abundant and high-quality harvest and long service life of the tree. Due to the fact that the leaves on the side branches of the mulberry collect food and cause thickening of the body, it is advisable to cut 1/3 of them not to the body, but to achieve a good result and do this under the name “Pruning to thicken the main part”. In the second year of seedling growth, depending on the level of their development in the previous year, two methods proposed by A. I. Fedorov and K. S. Zemsky were used, and positive results were obtained.

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