

## **Influence of A Polymer Preparation on Growth And Development During Vegetative Reproduction of Mulberry**

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**Annotation:** The article studies the cultivation of seedlings from varietal cuttings of mulberry in the conditions of the Tashkent region and the acceleration of the growth and development of cuttings of mulberry by applying a polymer preparation to the cuttings of the cultivated mulberry tree when laying bush plantations, which allows satisfying the needs for feeding the silkworm.

**Keywords:** Mulberry, cuttings, growth and development, root, leaf, seedlings, growth stimulator, nutrition, plantation.

Sericulture is one of the leading branches of agriculture in Uzbekistan. In connection with a significant increase in the production of cocoons, it is first of all necessary to expand and strengthen the fodder base of sericulture. Today, in the conditions of our republic, work is being widely carried out to grow mulberries and obtain a high yield of fodder leaves that are resistant to external environmental factors. In order to strengthen the fodder base of the silkworm in our republic, in a resolution of our government dated January 17, 2020 PQ 4567, a decision was made to develop measures to strengthen the fodder base of the silkworm and further develop sericulture in our republic, such as expanding mulberry plantations, using water-saving technologies in mulberry economy, as well as the promotion of effective agrotechnical measures, the improvement of the fodder base of cocoon production and the production of products intended for export. Its main purpose is to expand the food base of the silkworm and increase the yield of cocoons. By propagating the mulberry tree with cuttings treated with the Adenine preparation, it will be possible to obtain mulberry tree seedlings after the first year, planting. From the second year, you can use the leaves for feeding

By improving the reproduction of mulberry trees in a vegetative way, i.e. from cuttings, by treating the cuttings of the mulberry tree with polymer preparations, it is possible to accelerate the growth and development of cuttings, as well as the processes occurring during the growing season.

In this case, an important place will be occupied by the time of preparation and storage of cuttings.

In the farm of the Akhangaran district of the Tashkent region, own-rooted seedlings of zoned and breeding varieties were planted with unringed cuttings. The cuttings were harvested in the second decade of February and stored in a trench 50–60 cm deep before planting, digging in soil with a layer of 30–35 cm. cm, the cuttings were planted on April 4 in a horizontal way.

Before planting, the harvested cuttings were treated with a biologically active polymer preparation of the Adenine aqueous solution, which promotes rapid root formation, growth and disease resistance. For the first method of planting, longitudinal grooves 8-10 cm deep were made on top of the ridges.

Cuttings were laid in them and covered with soil. With this planting, good conditions for aeration of the soil are created for the cuttings due to the normal access of air.

Varieties Uzbeksky, Dzhararyk-9, Azerbzhansky-21, SANIISH-9, Tadzhijskaya seedless were used as an object of research.



Fig 1. Two-year-old seedlings from cuttings treated with the polymer preparation "Adenine".

In total, 250 cuttings of 50 pieces were planted. by grade. Planting of varietal cuttings was carried out in one day. As a growth stimulator, the drug "Adenine" obtained at the Institute of Bioorganic Chemistry named after Obit Sodikov of the Academy of Sciences of the Republic of Uzbekistan was used. At the same time, the process of rooting of mulberry cuttings was accelerated, as well as the processes of leaf formation, the formation of lateral branches, and growth in height. It was noted that the mulberry cuttings treated with the drug were superior to the object of comparison in all respects. The data obtained are given in table.

Influence of Adenine on the survival rate of mulberry cuttings					
Variety	Landing time	Number of planted cuttings (pcs.)	Length of cuttings (cm)	survival rate cuttings pcs.	survival rate cuttings (%)
Узбекский	03.04.2022.	50	30 см	40	80%
Джарарык 9	03.04.2022.	50	30 см	44	88%
САНИИШ 9	03.04.2022.	50	30 см	37	74%
Азербайджан 21	03.04.2022.	50	30 см	29	58%
Тажикская безсемянная (контроль)	03.04.2022.	50	30 см	26	52%

The table shows that the polymer preparation applied to mulberry cuttings had a good effect compared to the control variant. The survival rate of the object of comparison was 52%, the survival rate of Uzbek varieties was 80%, Dzhararyk-9 was 88%.

**Conclusion:** Summing up, we can say that in the conditions of the Tashkent region, the reproduction of mulberry in a vegetative way gives a good effect, when using a polymer preparation, it gives relatively high results compared to planting in the usual way.

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