

UNABI (*ZIZIPHUS MILL*): DEVELOPMENT, RECENTLY AND NOWADAYS

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ABSTRACT

Today unabi fruit tree widely produced worldwide as well in Uzbekistan. Its food and medical characterization are main value which ample cultivated and harvested. This study is investigated effect of stimulators and growth methods on producing nursery of unabi. The results which obtained during experiment showed that *Hosilin* treatment more valuable and make sense unabe growth.

INTRODUCTION

The cultivation of unabi seedlings, the establishment of orchards, and the improvement of the overall production are currently given a lot of attention in the area of fruit cultivation. For instance, the subtropical fruit unabi has a total cultivable area of 410,000 hectares, and the entire harvest to date has been 7.5 million tons. unabi is widely grown in nations including China, India, South Korea, Afghanistan, Pakistan, the United States, and Russia. In China, intensive unabi orchards have been grown over more than 200,000 hectares of land. Today, as food security becomes more worldwide, one of the critical responsibilities is to boost productivity and acquire quality harvests.

A number of scientific studies have been conducted in recent years to increase the volume and quality of cultivation of this fruit, which has a high nutritional and medicinal value, in countries around the world that grow unabi on an industrial scale, such as China, India, and South Korea. In this regard, over 200 unabi varieties have been developed in China, and low-height intensive orchards planted densely per unit area have been established, yielding 1.5-2.2 times more than traditional orchards. Nonetheless, it is considered urgent to increase seed fertility, improve agrotechnical elements for obtaining high-quality seedlings, and reduce costs in the cultivation of seedlings of this plant.

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In recent years, increased fruit growth, notably the production of unabi fruit, has received special attention in our nation. For instance, the introduction of high-yielding varieties and technologies of agricultural crops, especially to further strengthen the food security of our country, has been intensively applied to the field of agricultural production, first of all, agriculture suitable for local soil-climate and ecological conditions, according to paragraph 3.3 of the Action Strategy for the Further Development of the Republic of Uzbekistan.

The ideas for choosing potential unabi types, figuring out the best planting layouts for its intensive gardens, and developing quick-replicating unabi seedling technologies have been developed. In particular, suggestions were made regarding the quick development of unabi seedlings from green and woody cuttings, enhancing fruit quality indicators, increasing seed germination, choosing promising types suitable for the soil and temperature of the cultivation area, etc.

Numerous scientific and practical projects are being carried out in our republic today to improve the economic efficiency of agricultural production, broaden the types and varieties of fruit growing, which is its most significant and lucrative branch, and, on the basis of this, to further strengthen the population's food security and develop the principles of healthy eating. In this regard, the issues of improving the fertility of unabi seeds included in the study, hastening the cultivation of high-quality seedlings, and improving agrotechnical elements for obtaining an abundant and high-quality harvest are significant, and the resolution of these issues is crucial for the growth of these priceless orchards in the republic. It makes it possible for unabi's output to rise.

MATERIALS AND METHODS

The research focused on Melkoplodnyy No. 1, Ta-Yang-Zao, U-sin-hun kinds of unabi, growth promoters, borate (H_3BO_3), succinic acids, and Khosilin (20% gibberellin).

The use of stimulants during the pre-sowing preparation of stratified unabi seeds, the cultivation of seedlings used as grafts, the timing of spring bud grafting, the application of fertilizer rates during the cultivation of grafted seedlings, and the use of additional foliar feeding are the topics of the study. are agrotechnical measures that guarantee affordable, high-quality seedlings.

The experiments with fruit- and berry-bearing plants described in Kh.Ch. Buriev, N.Sh. Yenileev, and others' "Methodology of calculations and phenological observations in



experiments with fruit and berry-bearing plants" (2014) and "Metodika uchetrov I nablyudeniy v opytax s plodovymi I yagodnymi" by V The ITI of Cotton Selection, Seeding and Cultivation Agrotechnologies of Uzbekistan developed a system for studying the water-physical parameters of the soil in the experimental field (1977).

B.A. used the Excel 2010 and Statistica 7.0 for Windows computer tools to statistically analyse the research findings. It was estimated with the Dospekhov method (1985).

RESULT AND DISCUSSION

The findings of research on seed quality indicators, the impact of processing unabi seeds in various growth stimulants on growth, development, quality, and economic efficiency are discussed.

When stratified Melkoplodnyy kislyy 1 variety seeds were treated with a solution of the growth stimulant hosilin (20% gibberellin), the greatest values of laboratory and field germination of seeds and germination energy of seeds were noted. Before planting, unabi seeds were treated with growth stimulators, which increased field fertility by 75.1–78.7% and considerably sped up seed germination and seedling growth compared to the control (Table 1).

Table 1. From 2014 to 2017, the performance of unabi stratified seedlings in the presence of growth enhancers was examined.

Growth stimulants	Laboratory germination of seeds, %	Germination energy of seeds, %	Germination of seeds, %	Plantability of seed, %
Seeds treated with water (control)	73,2±7,1	20,1±2,3	68,2±6,7	64,4±6,3
Boric (H ₃ BO ₃) acid	86,9±8,8	23,5±2,5	76,7±7,4	76,7±7,8
Succinic acid	86,1±8,4	23,2±2,1	75,1±7,6	75,8±7,2
Hocilin (20% Gibberellin)	88,5±8,5	24,6±2,5	78,7±7,7	77,8±7,4

When stratified unabi seeds were planted in growth stimulators, compared to the control option (when the seeds were treated with water), the average height of the seedlings on the 60th day of the growing season was 39.1-41, 5 or 2.7-5.1 cm high, these indicators increased according to the law on days 90-150, and on the 120th day, according to the options, 55.1-57.7 or 4.9-7 .5 cm, on the 150th day it was 69.9-78.7 or 6.5-15.0 cm high.

CONCLUSIONS

1. Unabidan (*Ziziphus Jujuba* Mill) sustainability standards, low-cost seed preparation techniques, and growth stimulant application technologies for producing seedlings that are full, vivacious, and healthy. From a scientific and practical standpoint, it has been demonstrated that determining the quantity of trees is a crucial step in the efficient use of resources.

2. When stratified unabi seeds were exposed to a gibberellin (20% gibberellin) solution, the growth stimulant, the laboratory germination of seeds was 88.5%, the field germination was 78.7%, and the germination energy of seeds was 20% did.

3. In comparison to the control option, unabi seeds treated with pre-sowing growth stimulants have leaves with surface areas between 202.4 and 260.0 cm² during the last 150 days of the growing season and chlorophyll contents between 51.8 and 53.9 mg on the 60th day and 107.3 to 109.4 mg on the following 120 days.

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