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EFFECTIVE AGROTECHNOLOGY FOR GROWING PEACH SEEDLINGS IN FOG-GENERATING STRUCTURES

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Abstract
The issue of improving the health of the population, increasing the popularity of food products, primarily natural products rich in vitamins and medicinals, especially fruits, is considered one of the most important issues around the world. In this regard, the peach fruit is of special importance with its unique taste and composition.
According to the UN Food and Agriculture Organization, 24.7 million people worldwide eat about tons of peaches are grown, "China is the leader in peach cultivation and there are 15.00 million tons of peaches are harvested. Also, countries such as Spain (13.06 million tons), Italy (10.15 million tons), Turkey (892 thousand tons), Greece (890.6 thousand tons), Iran (663.6 thousand tons) produce peaches. It is one of the leading countries in terms of production. Mechanization and intensification of agro-technological processes, from the cultivation of peach seedlings to harvesting, to ensure the continuous consumption of peaches by the world's population, to ensure the continuity of its cultivation is an urgent task.

Keywords. Peaches, pen, intensive, tumanka, seedling, agrotechnics, temperature, crop, grain, new varieties.

Introduction

It is known that peach is one of the most delicious fruits on earth (mango, orange, peach). Various varieties and forms of peach are widespread in Fergana region. In particular, various varieties of lyuchchak peach have been cultivated in this region since ancient times. Uzbek peaches are very diverse in terms of economic, biological and morphological characteristics. Among them, the most common are varieties with hard fruits, as well as varieties with hairless (nectarine) and flat (fig peach) fruits.
Peaches, depending on the purpose of their fruit consumption, are divided into edible, canned, canned, and universal varieties. The total ripening period from early to late varieties lasts more than four months (from June to October).
Peach fruits are not resistant to transportation and are not well stored. The fruits of early varieties are stored well for three to four days after picking, and those of late varieties for 8-12 days.
Peaches are the third most valuable fruit in Uzbekistan. The homeland of peaches is China. There are 6 known species.
Most of the cultivated varieties belong to the common type. Central Asia is also considered the ancient center of peach. It is mainly distributed in the Fergana and Zarafshan valleys, in the southwestern region of Uzbekistan, as well as in the mountainous regions of Tajikistan. Among

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the CIS countries, peaches are also widely grown in Armenia, Georgia, and Dagestan.

The nutritional value of fruits is explained by the fact that they contain easily digestible carbohydrates, organic acids, tannins, nitrogenous substances, mineral salts and vitamins. Almost all fresh fruits and vegetables have medicinal properties. The amount of certain substances in the composition of fruits and vegetables depends on their variety, degree of ripeness, growing conditions and other factors.

Water is involved in all processes of life of living organisms. The amount of water varies in different food products. The amount of water in food products affects their nutritional value, taste and shelf life. Water is the main component of many food products and has a strong influence on their quality indicators.

The water content in food products: for example, in cereals and flour 12-15%, in bread 23-48%, in starch 13-20%, in sugar 0.15-0.40%, in dried fruits 12-25%, in fresh fruits 75-90%, in fresh vegetables 65-95%, in beef 58-74%, in fish 62-84%, in milk 87-90%, in beer 86-91%. From the examples given, it can be seen that the water content in most products is not less than 50%.

It is very difficult to store food products with a high moisture content for a long time, because microorganisms develop rapidly in an aqueous environment. Water accelerates the chemical, biochemical and other processes that occur in food products.

The relevant paragraphs of the 30th goal of the “Development Strategy of New Uzbekistan” of the Republic of Uzbekistan for 2022-2026 set the tasks of “...developing fruit and vegetable growing, increasing the area of intensive gardens by 3 times,...”, The “National Program on Seed and Seedling Production” was also approved, and for the implementation of this program, priority areas consisting of 7 paragraphs were determined, in paragraph 7 of these priority areas, the issue of “...fully satisfying the domestic need in the production of fruit tree seedlings and creating a system for organizing the export of seedlings” was identified as one of the priority areas. Also, in accordance with Appendix 2 to the Resolution of the Cabinet of Ministers No. 51 dated February 2, 2023, “Propagation and development of horticultural and viticultural varieties and seedlings In the field of "Introduction of foreign fruit and grape varieties and creation of new varieties" parameters - based on 4 fruit and 1 grape varieties in 2022, by 2026, fruits to 9, grapes to 2; and in the parameters "Cultivation of high-quality, certified fruit and grape grafts and seedlings" - based on 2 million fruit seedlings in 2022, fruit seedlings to 9 million by 2026, ...2"

It is an urgent task to ensure the implementation of the above-mentioned tasks in practice, including conducting research to improve the elements and processes of agrotechnology for growing peach seedlings.

The Decree of the President of the Republic of Uzbekistan dated March 29, 2018 No. PF-5388 “On additional measures for the accelerated development of fruit and vegetable growing in the Republic of Uzbekistan”, the Resolution of the President of the Republic of Uzbekistan dated September 19, 2016 No. PQ-2603 “On additional measures to stimulate the export of fruit and vegetable, grape and melon products”, the Resolutions of the Cabinet of Ministers of the Republic of Uzbekistan dated April 3, 2018 No. 258 “On measures to increase the efficiency of land use of farms in the field of vegetable and melon growing, horticulture and viticulture”, the Resolution of the Cabinet of Ministers dated February 2, 2023 No. 51 and other regulatory legal acts are implemented in practice. This dissertation research serves to a certain extent to ensure this.

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The objects of the research were local peach grafts: White Peach, Zafroni, Yellow Hadusamad, and some new varieties: Lola, Obilniy, as well as newly introduced clonal grafts Garnem and promising clonal grafts GF-677, the growth regulator indolylbutyric acid, (Kornevin powder), heteroauxin (Kornerost tablet form), a controlled microclimate facility, and an artificial substrate. The subject of the study was the morpho-biological characteristics of seedlings and clone grafts of peach varieties, the schemes and timing of planting green cuttings in an artificial substrate, and the characteristics of the ability of peach plant varieties to reproduce from green cuttings in artificial fog-generating structures.

The practical results of the research are as follows:

In the soil and climatic conditions of the Fergana Valley (in the case of Andijan region), it was found that when growing clone seedlings of old and some introduced peach varieties and new rootstocks by vegetative propagation, their vegetation period was 226-248 days and they can grow and develop well in the climatic conditions of our republic;

In the soil and climatic conditions of the Fergana Valley (in the case of Andijan region), the active temperature for the beginning of budding of peach plants is 13-18.5 ° C, for the formation of the first leaf - 70.5-80.5 ° C, and before the first signs of wilting are observed - 3275-3286 ° C. It was found that this indicator fully corresponds to the biological requirements of the plant (2500-4200 ° C) and that the effective terms of propagation from green peach cuttings in the climatic conditions of our republic and the concentration of growth regulators, in certain soil and climatic conditions, it is possible to successfully grow rootstocks of this fruit plant based on intensive technology;

It was found that the transpiration rate in the studied varieties of peach plants and newly introduced clonal grafts during the warmest hours of the day (at 1400 hours) was highest in the range of 205.1 g/m2—217.8 g/m2 in the old-planted local varieties, the lowest in some new varieties was 151.8—168 g/m2, and in newly introduced clonal grafts it reached an intermediate value, i.e. between 193.2 and 198.3 g/m2;

The level of frost resistance of the studied peach rootstocks during the deep dormancy period was up to -17 °C in clone branches of old local varieties, up to -19 °C in clone branches of some new varieties, and up to -18 °C in newly introduced clone rootstocks, which indicates that these varieties can be grown even in regions where winter temperatures do not fall below -15-18 °C;

When growing peach seedlings from green cuttings, it was found that preparing the cuttings in the second half of May and treating them with an aqueous solution of indoleyl butyric acid with a concentration of 50 mg/l for 2 hours increased rooting to 85%.

Conclusion

In conclusion, it was proven that peach propagation from green cuttings is quite effective. Propagation of peach from clonal rootstocks shows that it is possible to grow it even in regions where winter temperatures do not fall below -15-18 °C.

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