



SCIENTIFIC JUSTIFICATION OF THE TECHNOLOGY OF VEGETATIVE PROPAGATION OF GREEK NUT SEEDLINGS

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<https://doi.org/10.5281/zenodo.11076467>

Аннотация: Ушбу мақолада грек ёнғоғи кўчатларини турли пайвандлаш усулларида етиштиришда мақбул пайвандлаш муддати аниқланди. Искана пайвандлаш усулларида – 10 март, 20 март, 30 март ва 10 апрел пайвандлаш муддатларида. Пўстлоқ тагига қаламча пайвандлаш усулларида – 30 апрел, 10 май, 20 май ва 30 май, пайвандлаш муддатларида. Куртак пайвандлаш усулида – 30 июл, 10 август, 20 август ва 30 август, пайвандлаш муддатларида тажрибалар олиб борилди. Тадқиқотларда маданилаштирилмаган грек ёнғоғини уруғини 70×10 см экиш схемасида экилган 100 дона уруғ ниҳоллари ҳамда 2-ёшли кўчатлари эса Идеал навида ўрганилди.

Калит сўзлар: Грекёнғоғи кўчати, Куртак пайванд, Пўстлоқ тагига қаламча пайванд, Искана пайванд, муддатлар.

Abstract: In this article, the optimal grafting period was determined in the cultivation of walnut seedlings using different grafting methods. In the welding methods of the machine - March 10, March 20, March 30 and April 10 welding periods. In the methods of pen welding under the bark - April 30, May 10, May 20 and May 30, welding periods. Experiments were carried out in the method of bud grafting - July 30, August 10, August 20 and August 30, grafting periods. In the research, 100 seed sprouts and 2-year-old seedlings planted in a 70×10 cm planting scheme of uncultivated walnut seeds were studied in the Ideal variety.

Key words: Walnut seedling, Bud graft, Pen graft under the bark, Graft graft, terms.

Аннотация: В данной статье определен оптимальный срок прививки при выращивании саженцев грецкого ореха разными способами прививки. В способах сварки машины - 10 марта, 20 марта, 30 марта и 10 апреля периоды сварки. При способах сварки пером под кору - 30 апреля, 10 мая, 20 мая и 30 мая, периоды сварки. Опыты проводились по методу прививания почек - 30 июля, 10 августа, 20 августа и 30 августа, сроки прививки. В ходе исследований у сорта Идеал были изучены 100 семенных ростков и 2-летние сеянцы, высаженные по схеме посадки 70×10 см некультивированными семенами грецкого ореха.

Ключевые слова: Саженец грецкого ореха, Прививка почки, Прививка пера под кору, Прививка, сроки

Introduction:

Greek nut (*Juglans regia* L.)- is one of the agricultural crops grown in temperate and subtropical climatic zones, widely distributed throughout the world. Reproduction of nuts from seeds of the genus *Juglans*. In the world, seed propagation is used to grow seedlings of Greek nuts – seeds are planted at once in a permanent place of growth, or by the method of

growing crop material in a nursery. However, some varieties and forms can be propagated for the purpose of obtaining fruit by propagation from seed without grafting, and this makes breeding work significantly easier. In addition, for the construction of plantations for the purpose of obtaining nuts, Greek nuts are mainly propagated by grafting.

During the visit of the president of the Republic of Uzbekistan Shavkat Mirziyoev to the Samarkand region on October 5, 2016, it was noted that the fertile use of the Lands of the Urgut district, in particular, the adirli lands, were assigned to organize nuts, almonds, vines, which were later highlighted above (2017

June 1) the adoption of the decree of the president of the Republic of Uzbekistan PQ-3025 "on the formation of the Union of nut producers and exporters and the organization of its activities" indicates increased state attention in this regard.

RESEARCH STYLE:

In the years 2020-2021, research work was carried out on the field of the Boastonlyk mountain-Experimental Station of the Research Institute of horticulture, viticulture and winemaking named after academician Makhmud Mirzaev in the framework of the project "enriching Plant Genetic Resources in Uzbekistan and India and increasing the scientific potential of researchers".

In experiments, determining the optimal grafting period when growing Greek nut seedlings in different grafting methods was carried out in the following options:

I) In iskana welding methods-March 10, March 20, March 30 and 10 April welding deadlines;

II) In the methods of welding cuttings to the base of the bark-April 30, May 10, May 20 and May 30, in the terms of welding;

III) Bud grafting method-July 30, August 10, August 20 and August 30, in the terms of welding.

In studies, uncultivated Greek nut seeds were studied in the ideal variety of 100 2-year-old seedlings planted in a 70×10 cm planting scheme.

RESEARCH RESULTS.

When grafting the "ideal" variety on the 2nd-year-old seedlings of the uncultivated Greek walnut in the iskana method, the period of March 10 – 10 days (20/III), on March 20-12 days (02 / IV),

On 30 March – 15 days (15/IV) and on 10 April – 20 days (01/V) it was found that the welder was caught. The catch of leeches showed 65.6% in leaching for the period of March 10, 13.1 pieces. However, pushing the welding period 10 days later made it possible to catch the welds, including the welding period on March 20 – 10.4 pieces (52.1 %), on March 30 – 4.2 pieces (20.8%), and on April 10 – 2.1 pieces (10.5%). Graft dates were found to be 10 March (65.6 %) in the iskana method of catching the highest grafts of Greek nut varieties (see Table 1).

According to the results of a study on determining the optimal grafting period in the cultivation of Greek nut seedlings by the bark – based method, the grafting period was captured on April 30 – 10 days (10/V), on May 10 – 8 days (18/V), on May 20 – 15 days (05/VI) and on May 30 – 20 days (20/VI), on April 30 of 20 grafted seedlings – 4 pieces (20.2 %), on May-15.1 pieces (75.3%),

On May 20 – 10.2 pieces (50.8%), and on May 30 – 3.2 pieces (15.8 %) were found to have caught leeches. The scientific justification was that when growing Greek nut seedlings, it



is possible to carry out grafting under the bark in a pencil method on May 10 (75.3%).

1- table

Grafting of the "ideal" variety of Greek nuts in various welding methods and deadlines

Welding methods	Welding time	Number of welded seedlings, PCs	Grapppling the welder		
			Day Date/month	Number	percentage
Iskana	10/III	20	<u>10 day</u> 20/III	13,1	65,6
	20/III	20	<u>12 day</u> 02/IV	10,4	52,1
	30/III	20	<u>15 day</u> 15/IV	4,2	20,8
	10/IV	20	<u>20 day</u> 01/V	2,1	10,5
Pencil under the bark	30/IV	20	<u>10 day</u> 10/V	4,0	20,2
	10/V	20	<u>08 day</u> 18/V	15,1	75,3
	20/V	20	<u>15 day</u> 05/VI	10,2	50,8
	30/V	20	<u>20 day</u> 20/VI	3,2	15,8
Ringworm Bud	30/VII	20	<u>12 day</u> 12/VIII	4,0	20,1
	10/VIII	20	<u>08 day</u> 18/VIII	11,3	56,5
	20/VIII	20	<u>10 day</u> 30/VIII	6,2	30,8
	30/VIII	20	<u>12 day</u> 12/IX	5,1	25,7

According to the grafting period when growing seedlings of the "ideal" variety of Greek walnut in the folk Bud method, on July 30 – 12 days (12/VIII), on August 10 – 8 days (18/VIII), on August 20 – 10 days (30/VIII) and on August 30 – 12 days (12/IX), grafting took place proportionally – 4.0; 11.3; 6.2 and 5.1 pieces. In this method, the highest catch (56.5 %) showed the August 10 period of welding.

Conclusion:

The amount of high retention of the graft of the "ideal" variety of Greek walnut, as well as the tallest seedlings, iskana graft welding method-10 March (65.6% and 152.4 CM), pencil graft method under the bark-10 may (75.3% and 143.4 CM), as well as the folk Bud graft method

- It was found to be in the terms of August 10 (56.5% and 104.78 CM)..

References:



1. Ўзбекистон Республикаси Президентининг 2022 йил 28 январдаги ПФ-60-сон “2022-2026 йилларга мўлжалланган Янги Ўзбекистоннинг тараққиёт стратегияси тўғриси” ги фармони.

2. Витковский В.Л. Плодовые растения мира. – СПб.: Издательство «Лань», 2003. – 592 с.

3. Калмыков, С.С. Орехоплодные культуры Узбекистана // Ж. «Лесное хозяйство». – Ташкент, 1969. – № 2. – С.12-16

4. Бутков Е.А., Мамутов Б.Х., Николяи Л.В. Отбор лучших форм грецкого ореха в Узбекистане для создания сорта // Life Sciences and Agriculture. – 2020. – № 2/2020. – Р. 62-66.

