

## NEW VARIETIES OF WALNUTS

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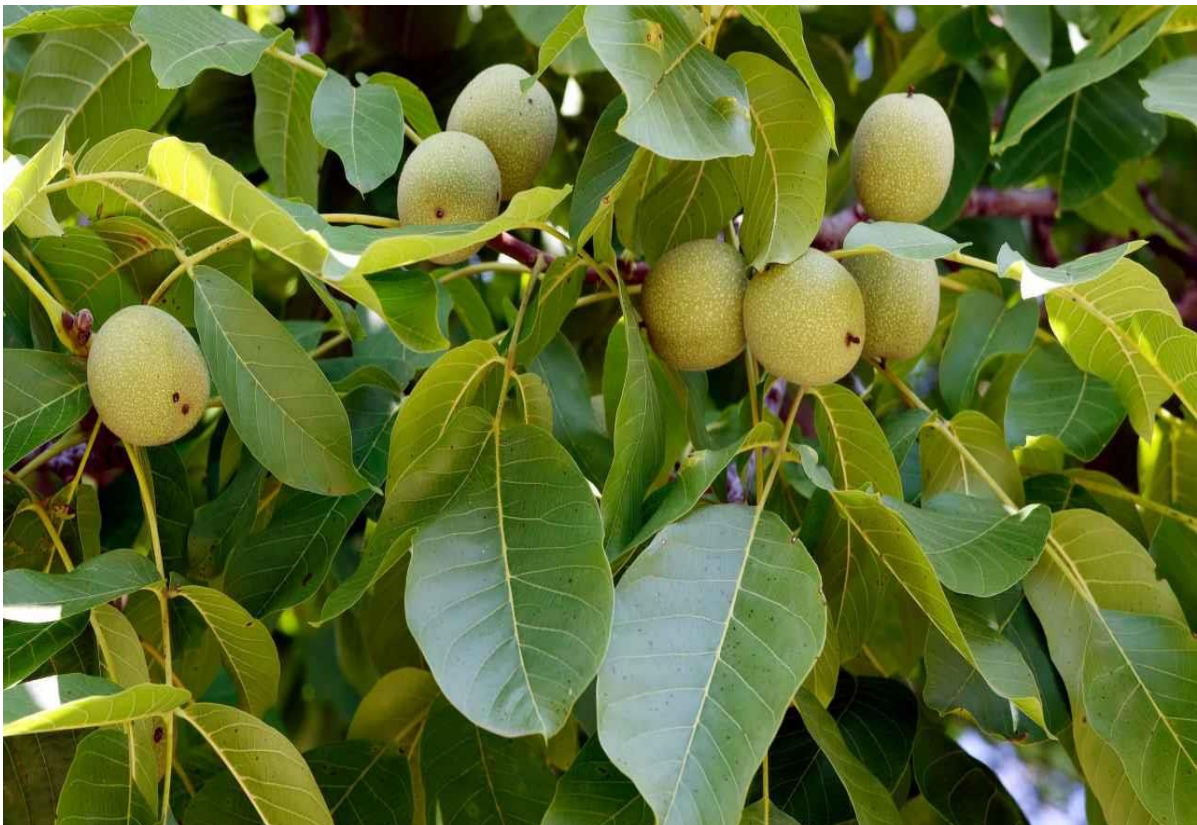
**Abstract.** *Apart from Central Asia, the walnut grows in the North Caucasus, Moldova, Crimea, the North Caucasus, and Ukraine. It is also grown in the Balkan Peninsula, Iran, Turkey, Afghanistan, Pakistan, China, Korea and Japan.*

**Keywords:** *Juglans-regia Konsoy, Pioner, Vatan, Yubiley, Do'rmonI, Do'rmon, Fernor Franket.*

Walnut is a heat-loving plant, but it is grown in places where it sometimes drops to 27-28 °C in winter. Walnut occupies an intermediate position between light-loving plants and shade-tolerant species, but when there is enough light, it gives an abundant harvest. It grows well only in soils with sufficient moisture.

A walnut tree begins to bear fruit in 8-10 years, and a grafted one in 4-6 years. Some tezpishar varieties begin to bear fruit at the age of two or three. One bush of walnuts can yield 100-150 kilograms or even 300-500 kilograms under favorable conditions. Currently, 4 varieties of walnuts are grown in almost all regions of our country, depending on the variety.

Today, nut products grown in our country are Austria, Azerbaijan, Afghanistan, Republic of Belarus, Bosnia and Herzegovina, Germany, Georgia, Israel, India, Iraq, Iran, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lebanon, Mongolia, the Netherlands, the UAE, Russia, Syria, Tajikistan, Turkmenistan, and Turkey are being exported.



The height of the tree is high, and it begins to harvest in the fourth year after planting. Nuts are large, wide ovoid. This variety is distinguished from other varieties by its resistance to cold and various diseases.

According to the data obtained from the Bostanliq mountain scientific-experimental station of Academician M. Mirzayev horticulture, viticulture and winemaking research institute, 7.5 kg of fruit was harvested from a 15-year-old tree and 10 kg from an eight-year-old tree. Where was it created? : Research Institute of Horticulture, Viticulture and Winemaking named after Academician M. Mirzayev.

Walnut. (*Juglans regia* L.) is a type of tree belonging to the walnut family, a nut-bearing tree. It grows wild in Asia Minor, the Balkan Peninsula, the Caucasus, Iran, China, the Korean Peninsula, and Afghanistan. There are many natural walnut groves in the mountains of Central Asia. Planted walnut groves have been established in many countries of the world. It is grown in mountainous areas and almost all irrigated regions of Uzbekistan.

It is 15-30 m tall and 1.5-2 m thick. The trunk is thick, wide spherical or dome-shaped, the root network is strong, it goes to a depth of 4 m or more. The leaf is large (20-40 cm), compound leaf composed of 5-11 leaflets, fragrant (essential oil). The flower is monoecious, unisexual, the pollinator (father flower) is placed in a cluster on the last year's branch, and the seed (mother flower) is placed in a single or 2-3, in some varieties, 5-10 pieces at the tip of a new branch and in the axil of a leaf. The fruit is a nut, round or more elongated, the pod is hard, soft, fluffy structure. One nut is about 5-23 g (content 40-75%). It produces 150-200 years, lives 300-400 years.

It grows well in carbonate, sandy, gravelly soils with no surface water, but sufficient moisture. The vegetation period is 165-210 days. It blooms in April-May, the fruit ripens in September-October. 30-50 s/ha can be obtained from walnut plantations. The leaves, peel, bark contain a large amount of nutrients, the core contains 45-72% fat, 8-21% protein, 20% carbohydrates, vitamin V, C, provitamin A, etc. There are substances. Iyota and agroforestry reclamation are of great importance in the establishment of tree groves and landscape gardening.

It is mainly propagated from nuts and by grafting. A grafted tree will bear fruit earlier in 4-6 years, and seedlings grown from walnuts in 6-10 years. New shoots from the trunk also grow well and bear fruit in 3-4 years. Seedlings are planted at intervals of 10x10 or 12x12 m. Walnut groves are fertilized with manure at the rate of 120 kg of nitrogen and 60-90 kg of phosphorus per hectare every 3 years at the rate of 30-40 t per hectare.

Varieties. R.R. Many varieties of walnuts have been created in the Bostanliq (Khumson) branch of the Schroeder Scientific Research Institute of Horticulture, Viticulture and Winemaking. The following varieties are mainly grown in Uzbekistan. Bostanliq is a honey tree. It goes up to 16 m. The fruit is large (13.3 g), egg-shaped, the pod is light yellow, thin. The core is easily separated from the pod. Core yield is 48.6%. It contains 68.8% fat and 2.2% sugar. Galvirak (thin pod) - tree up to 16 m. The fruit is medium (9-9.5 g), egg-shaped, the pod is light yellow, thin. The pulp is easily separated from the pod, contains 68.8% fat and 3% sugar. Antique - a tree up to 9 m, flowers open earlier and later, blooms in early spring, but can re-bloom in summer. The first crop ripens at the end of September, and the last one ripens 6-7 days after the first one. The fruit is medium (10-10.5 g), flat-round, the pod is yellow. The pulp is well separated from the pod, contains 67.1% fat and 3% sugar. Konsoy, Pioner, Vatan, Jubilee, Dormon1, Dormon2 and other varieties of Walnut are grown in Uzbekistan. Main pests:

nutworm, nut gall mite, leaf borers. In the fight against them, insecticides, 0.5% lime-sulphur decoction and others are used.



#### **THE BEST AND COLD-RESISTANT VARIETIES OF WALNUTS.**

Chandler is one of our best selling varieties. It is known for its high productivity. Chandler walnuts have a large, high-quality, light-colored initial grain.

It spreads leaves and blooms late, so it is more frost-resistant than other species. Franket is recommended to be used as a duster.

Fernor leaves late, has high productivity, is a French type and is resistant to pests. It is mainly recommended for cold areas that are not suitable for growing chandler type. Fernor is high yielding and produces large fruits of very good quality and taste. Fernet is recommended as a pollinator.

Franket is a late-blooming species and is very resistant to cold. It is a high-quality nut with a thin shell, a nut with good taste. Franket is very productive and is used as a pollinator for chandler.

Stand close to fernor on the surface of fernor pointers. Its fruits are large and have a pleasant taste. Ferner produces a lot and is used as a pollinator for fernor.

In the central part of our country, when choosing a walnut, first of all, it is necessary to pay attention to its resistance to cold. In the harsh climate for this southern culture, not every hybrid can survive the winter even under good shelter. In this regard, there are several varieties specially produced for such conditions that have proven themselves well.

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