

WONDERFUL-SEEDLESS POMEGRANATE VARIETY**ВАНДЕРФУЛ-БЕСЕМЯННЫЙ СОРТ ГРАНАТА****VANDERFUL-DANAKSIZ ANOR NAVI**

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ANNOTATION

This article describes the origin, distribution, description of species and varieties of pomegranate, its economic significance. The article also provides information on the work being done in the southern region of Uzbekistan to effectively cultivate and introduce seedless pomegranate-Wonderful variety.

Keywords: Pomegranate, species, variety, pomegranate collection, selection, seedless pomegranate, yield, pest, pomegranate cuttings, seedlings, phenological observation, fruit weight.

АННОТАЦИЯ

В данной статье рассказывается о происхождении, распространении, описании видов и сортов граната, его хозяйственном значении. Также в статье представлена информация о работе, проводимой в южном регионе Узбекистана по эффективному возделыванию и внедрению бессемянного граната сорта Вандерфул.

Ключевые слова: Гранат, вид, сорт, коллекция граната, селекция, бессемянный гранат, урожайность, вредитель, черенки граната, сеянцы, фенологическое наблюдение, масса плодов.

Pomegranate (*Punica granatum* L.) is a subtropical fruit plant, a tree or shrub 2-10 meters tall, belonging to the family Pomegranate (family Anorgulli). Widely cultivated in Central Asia, Azerbaijan, Iran and Afghanistan, wild species are found in the Mediterranean region, southern Central Asia, Crimea, Caucasus, Iran, Afghanistan, Old Asia and Dagestan.

The pomegranate is one of the first fruit trees to be mastered by ancient people. BC about the first pomegranate

It is recorded in the chronicles of the Battle of Marathon in 490. Throughout the millennial history of the pomegranate, people have grown many varieties. Sometimes the fruits of these varieties differ significantly from each other.

Only two species of pomegranate are known. One of them is the common pomegranate (*Punica granatum*), which grows wild in southern Europe and western Asia, while another species grows on the island of Socotra in the Arabian Sea.

It is called Socotran pomegranate (*Punica protopunica*). Socotran pomegranate is not grown because of its bitter taste, it grows only on the island.

More than 500 pomegranate varieties are grown in the world, and more than 40 in Uzbekistan. As a result of scientific research by breeders, the number of pomegranate varieties is growing. There are more than 340 varieties of pomegranates in the Nikitsky Botanical Garden near Yalta. The Kara-Kala Nature Reserve in Turkmenistan has the largest collection of pomegranates in the world, with more than 800 varieties and forms of pomegranate.

All known species and varieties of pomegranate are divided into two groups. The fruits of the first group have hard and dense seeds. They grow in warmer climates. Such pomegranates are well adapted to soil and external environmental conditions. The second group is plants with soft seeds. These varieties grow in a certain area. If the soil does not adapt to moisture and air temperature, it dries quickly.

Pomegranate fruit is rich in vitamins and minerals that are good for human health. The fruit contains 19-20% of sugar, 0.5-5% of acids, and the juice contains healing iron and tannins, as well as peel.

Contains up to 32% additive.

Pomegranate means "seed" when translated from the Latin word "Granatus". On average, its fruit consists of about 700 seeds. In nature, these fruit varieties differ in color and taste.

Seedless pomegranate varieties are very rare and are conditionally classified as seedless. Because seeds are an important element for plant reproduction. All varieties have seeds, but some pomegranate seeds are very small, soft and transparent. The fruits of these varieties give 20% more juice than seed pomegranates and are very suitable for fresh consumption and processing.

Seedless pomegranate cultivation is poorly understood by scientists around the world. There are two main types of information available. These are the Moller de Elche and the Vanderful variety.

The Moller de Elche variety is widespread in Spain. Fruit weight can reach 600-800 grams. The skin is thin but firm, pink. The grains are large. A distinctive feature of this pomegranate variety is its sweet taste.

One of the most famous seeds is the Vanderful pomegranate. According to the analysis, this is not the most productive variety, as it yields an average of 15 kg of fruit per tree. The high quality of the grain is appreciated for its juicy, pink and very sweet taste. Vanderful is grown in Peru, Israel and some Asian countries.

Vanderful is native to the United States and is a small, weak-growing variety. The taste of the fruit is sweet, the size is small, 200-300 grams, the shape is round, the skin is thin, slightly shiny, the color of the fruit is white-yellow-red. The thin, elastic skin of the fruit does not crack during ripening.

The seeds are small and soft and do not sink into the teeth. It differs from other varieties by its soft texture. The juice is light red in color and has a pleasant taste. The juice contains 13-15.1% of sugar and 0.3% of acid. Juice yield is 55-60% of fruit weight. From the tuber of fertility 8–10 kg, storage 1.5–2 months.

Vanderful navigation is in great demand in Asia and Israel. This variety is more resistant to pests than other varieties of pomegranate.

ONGOING WORK AND RESEARCH RESULTS

The Surkhandarya branch of the Scientific Research Institute of Horticulture, Viticulture and Enology named after Academician Mahmud Mirzaev is conducting research to study the Vanderful variety of pomegranate in Surkhandarya region.

According to the research, pomegranate cuttings were first prepared for the seedlings of this variety of pomegranate and planted in the nursery, from which it is planned to rebuild the pomegranate collection and plant it in the ground for burial in winter.

The following changes were observed in the phenological phases of the Vanderful variety: the awakening of buds occurred on March 10, and the appearance of leaves on March 17. Flowering phases: buds begin April 8, the first flowering

May 4, mass flowering May 16, flowering phase lasted until June 20.

The coloring of the fruits of the Vanderful variety began on September 13.



a- external appearance



b-internal appearance

Figure 1. Vanderful variety of pomegranate grown at the Surkhandarya branch of the Scientific Research Institute of Horticulture, Viticulture and Enology named after Academician Mahmud Mirzaev.

CONCLUSION

Vanderful variety is suitable for obtaining high quality juice in Uzbekistan. It is cultivated in many homes out of curiosity about the softness of the seeds and is popularly known as the seedless pomegranate. There is a growing interest in this variety and it is bearing fruit. In particular, the possibility of growing this variety in the south of Uzbekistan is proved by scientific experiments. In particular, for the results of mechanical analysis of pomegranate

Vanderful variety, analytical samples were taken and measurements were made on September 16-18. The fruit weighs the least in the Vanderful variety 225 grams. When the sugar content was studied, it was found that the sugar content was 15.1% (Table 1).

Table 1. Results of mechanical analysis of vanderful variety and sugar content

No	Naming of varieties	Date of the event	h	d ₁	d ₂	m	Sugar content%
1	Wonderful	16.09	7.4	8.2	8.4	190	15.1

Anor navlaridan o'tkazilgan degustasiya natijalariga ko'ra, yumshoq danakli anorlar Vanderful 4,5 ballni tashkil etdi va anor donalarining yumshoqligi va eganda tishga botmasligi, sersuvligi bilan boshqa navlardan farq qildi (2-jadval).

2-jadval. Anor navlarining degustasiya bahosi (5 b/shk)

No	Naming of varieties	Date of the event	External appearance	Taste	Taste price	Softness	Overall price
1	Wonderful	16.09	4.3	Sweet	4.7	4.5	4.5

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