

**DISTRIBUTION AND DIFFERENT VARIETIES OF PEARS**

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**Abstract:** Interesting and historical information about the pear fruit is given. You can find out about the origin of this pear, its distribution on the earth, its homeland and several useful aspects of its different varieties.

**Key words:** Pear fruit, historical data, varieties of pear fruit.

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Pear (Latin: *Pyrus*) - a type of fruit and ornamental tree and shrub belonging to the Rosaceae family. Pears were cultivated in ancient Persia, Greece and the Roman Empire. Today, the world's largest pear growing countries are China with 19.5 million tons, USA with 0.73 million tons, and Turkey with 0.47 million tons. Currently, there are thousands of varieties of pears. Fruit fungi are covered with a thick peel. Pear is a fruit crop that is distinguished by its cultivation in cold and temperate climates, which goes back to ancient times and is distinguished by its use as food in BC. One of the proofs of this can be shown by the many traces found in prehistoric pile houses around Lake Zurich. Pear was cultivated in China in 2000 BC. An article on pear tree cultivation in Spain appears in Ibn al-Awwam's 12th-century agricultural work, *The Book of Agriculture*.

Pear is one of the most important stone fruits, and when fully ripe, it is widely consumed in fresh and processed forms, such as puree, jam, dried, etc. Pear varieties are very diverse as they are grown commercially in more than 50 countries around the world.

The following sentences can be read in Zahriddin Muhammad Babur's "Baburnoma" and Makhdumi A'zam's "Risolayi-bittikhiya" (farming treatise):

Makhdumi A'zam was a farmer-breeder who lived in Samarkand (Dahbed), and he created "Bog'i Maxdumi A'zam" on an area of more than 90 acres. He brought and cultivated various types of crops from different parts of the world, created Dahbedi melon, Dahbedi fig, and Dahbedi walnut varieties based on selection and study, and these varieties became famous at that time. He bequeathed to be buried next to a pear tree that he took care of and grew, and he was buried next to this pear tree. Thus, Makhdumi Azam personally set an example to "enliven, blossom, purify and improve the world entrusted to human judgment".

Pears were also cultivated by the Romans, who ate the fruit raw or cooked like apples. Pliny in his natural history recommended cooking it with honey and listed about 36 varieties. The Roman cookbook *De re coquinaria* is also known to have a recipe for a spiced pear patina or souffle. In addition, the Romans introduced the pear fruit to Britain. This species is believed to have originated in the foothills of the TianShan Mountains, a mountain range of Central Asia in what is now Western China, and spread north and south along the mountain ranges, becoming a diverse group. Pear came to us in prehistoric times. His homeland has not been established. Cultivated pear originated in Ancient Greece (1000 BC). In 2005, the world production of pears was 15 million tons (estimated by the US Department of Agriculture). The largest producer of pears is China. Although the pear is a temperate climate plant like the apple, it requires a lot of

heat, is less resistant to cold and lives longer than the apple. It lives for 100-150 years and sometimes up to 200 years.

According to Ribakov and Ostroukhov (1981), pear is the most common fruit tree after apple. It is noted that European varieties of pears arrived at the end of the 19th century. Pear differs from apple in that the outer branches first bloom and then the middle branches bloom. Pear is second only to apple in terms of productivity, some local varieties can yield 1000-1400 kg. In this book, it is noted that there are about 5,000 varieties of pear in horticulture, 120 of which are cultivated in the SSSR, and there are about 60 wild varieties.

Pear is propagated by grafting. Pear trees are planted from two-year seedlings. Seedlings are harvested in 5-6 years. Since the 10s of the 21st century, pear seedlings connected to small and low grafts have been planted in the intensive gardens of Uzbekistan. European varieties of pears have been cultivated in Central Asia since the end of the 19th century. In the 50s of the 20th century, varieties brought from Western Europe and the USA became widespread. Today, 17 varieties of pears are grown in Uzbekistan.

Depending on the variety, it is recommended for planting in almost all regions of our country. Today, pear products grown in our country are exported to countries such as Kazakhstan, Kyrgyzstan, Mongolia, UAE, Russia, and Turkmenistan. Turkestan wild pear) species. Such plant species have been preserved in places where it is difficult to harvest or in cultural conditions.

The period of harvesting fruits is determined depending on their type and variety characteristics, the demand for the product and the purposes for which they are used. The ripening period of pear varieties starts from the end of July to the beginning of October. Usually, ripe pears are stored for a short period of time, they are harvested in one harvest. In the middle and late varieties, the skin is harvested several times. Each variety has its own color and tone when ripe. This should be taken into account when picking the crop. Summer and autumn varieties sent to distant places are picked before they are too ripe (technically ripe). Fruits intended for drying, processing and fresh consumption are suitable for consumption and are picked when the fruit is ripe, that is, when the taste and color of the fruit are characteristic of this variety. Summer pear varieties intended for shipping to distant places are picked 5-7 days before full ripening, autumn varieties 10-15 days, and winter varieties before September 5-10, depending on the weather.

Pear's shelf life is determined by its ripening characteristics. Mid-ripe pear varieties can be stored for a short period of time, and late varieties can be stored for up to 7-8 months. Pears are usually placed in boxes for storage. In this case, pears are better stored if they are wrapped in paper. When the pears are placed in the boxes, paper or shavings can be placed between them. It is acceptable to store pears at a temperature between 0 and +2°C. Often at this temperature, fruits picked from very late ripening varieties ripen very slowly and remain firm without losing color until the end of the shelf life. Such pears should be kept and matured for 4-7 days at 15-20°C before sending them to market. The relative humidity of the air in the warehouse should be 85-90%. It is necessary to pay attention to the fact that the air temperature in the warehouse should not change too often, otherwise the fruits may ripen quickly, and such a pear cannot be stored for a long time.

It has been mentioned that Nashvati (P. serotina Red.) is native to China, grows up to 15 m tall, has no thorns, its fruit is not suitable for eating, and it has the characteristics of vegetative reproduction. A group of pear varieties grown by folk selection. Varieties such as Qishki

Nashvati, Kuzgi Oq Nashvati, Chillaki Nashvati, and Yozgi Nashvati belong to this group. In Uzbekistan, the wild type of Nashvati called murut, olmurut - Korzhinsky pear (*P. korshinskyi* Litv.) grows in the foothills and slopes of the mountains, in streams. The fruit is round or pear-shaped. It has been cultivated in Uzbekistan since ancient times. Seedlings of cultivated varieties are grown by grafting onto cuttings grown from wild pear seeds. It is harvested in 4-6 years. The height of the tree is 8-12 m. Blooms earlier than other pear varieties. Depending on the variety, the fruit ripens from the end of June to the beginning of October, the weight is 120-250 g (sometimes 500-700 g), most of them are yellow-blue, some are colored, the surface is smooth and oily. The flesh is light yellow or bluish-white, juicy, juicy, sour, the seeds are large, and the fruits are stored until March-April.

"Williams" was created in Western Europe. Entered into the State Register of the Republic. The fruit ripens in the first ten days of August. The average height of the tree is 5.4 m, it begins to harvest in the fourth year. The yield is 138.9 s/ha, the highest yield is 232.9 s/ha. The fruit is elongated, the surface is rough, the peel is thin, shiny, waxy yellow when ripe, with small dots. The average weight of the fruit is 140 g. The meat is tender, tender, and the taste is very good.

"Zimnyaya nashvati 2" was created at the scientific-research institute of horticulture, viticulture and winemaking named after Akademik M. Mirzayev. It is entered into the State Register of the Republic of Karakalpakstan and Bukhara, Navoi, Kashkadarya, Samarkand, Surkhandarya, Tashkent, Jizzakh, Syrdarya, Khorezm regions. The variety is winter, the fruit ripens in the first ten days of October. Productivity - 228.5 s/ha, highest productivity - 310.8 s/ha. The height of the pear tree is 10.3 m, the branches are wide umbrella-like, and it begins to bear fruit in the sixth year. The fruit is barrel-shaped, the upper part is smooth, the color is yellow, the average weight of the fruit is 177 g. The flesh is white, the yolk is very sweet, dense, slightly sour.

"Lesnaya krasavitsa" - created in Belgium. It is entered into the State Register of the Republic. A type of khoraki eaten in summer. The fruit ripens in the second ten days of July. The yield is 228.3 s/ha, the highest yield is 299.2 s/ha. The average height of a pear tree is 5.8 m, its branches are thick and wide pyramidal. It is harvested in the fourth year after planting. The fruit is ovoid-pear-shaped, golden yellow, with clear reddish bubbles, the average weight of the fruit is 125 g. The flesh is yellowish white, tender, soft, oily, sweet in taste.

"Levovasser variety" - created in France. Entered into the State Register of Kashkadarya region. The variety is winter, the fruit ripens in the first ten days of October. The height of the pear tree is 7.1 m, and it begins to harvest in the seventh year. Productivity is 83.6 s/ha, the highest productivity is 145.2 s/ha. The side of the fruit band is very narrow, the peel is yellow and has numerous rust-like dots. The fruit is large, average weight - 180 g. The flesh is white, dense, juicy, sour-sweet taste.

"Sariq go'zal" was created at the scientific-research institute of horticulture, viticulture and winemaking named after Akademik M. Mirzayev. Since 2003, it has been included in the State Register of Bukhara, Tashkent and Fergana regions. It ripens in summer. The fruit ripens in July. The height of the pear tree of this variety is medium, that is, 5.5-6.0 m. It is harvested in the sixth-seventh year. Productivity is 486.4 s/ha. The fruit is large, light-green in color, some parts are reddish, average weight is 230 g. The flesh is white-yellow, juicy, the fruit is sour-sweet.

"Ra'no" was created at the Samarkand scientific-experimental station of the Academician M. Mirzayev Horticulture, Viticulture and Winery Research Institute. Entered into the State Register of Namangan region. The variety is autumn, the fruit ripens in the third ten days of

August. The pear tree is medium in height and has wide branches. The tree begins to bear fruit in the fifth year after planting. The productivity is 200 s/ha, the highest productivity is 375.6 s/ha. The fruit is elongated, yellow, with red pulp, large, the average weight of the fruit is 153 g. The flesh is medium juicy, dense, sour-sweet taste.

Jaydari nok (*P. communis* L.) - growing wild in Kursk, Voronezh regions of Ukraine. In Central Asia, wild species are said to be found in Kazakhstan. It is mentioned that it occupies large areas in the Bostanliq region. It is assumed that the tree will reach a height of 20 m, live up to 200-300 years, have many species, and be a strong graft.

Central Asian pear (*P. Asial mediae* Pop.) - its occurrence in the walnut groves and meadows of Tianshan, in the valley of the Pskom River, is recorded in this literature. It is noted that the tree has large spreading branches and no thorns. This species has become wild and can be used as a graft.

Turkman pear (*P. Turcomanica* Malleev) - found in the wild in Kopettog, the height of the tree reaches 4 m, the branches are wide, without thorns, the fruit is large and sweet.

Ussuri pear (*P. ussuriensis* Max.) - widely distributed in mountain forests and valleys of the Ussuri region, its tree height reaches 10-15 m, it is thorny, there are many species, it is used as a hedge possibility and its use in selection works are presented in this literature.

Willow-leaved pear (*P. Salicifolia* Pall.) - grows in dry stony places, on the edge of the forests of the Eastern Caucasus, grows up to 10-12 m tall, resembles a basalt bush, produces many root buds, dry resistance to drought is noted.

Regel pear - grows on the slopes of Western Tianshan and Pamir Oloy mountains, has a strong root, is small (5-6 m), has long thorns, differs from other species with feathery leaves, dry resistance to drought, ability to grow on stony ground, hybridization of this species with Korzhinsky pear - Bukhara pear (*P. Bucharika* Litw.) was mentioned. It is also mentioned that it can be used as a graft in Central Asia.

In this literature, the authors mentioned the introduction of many species of local, wild, forest pear growing in the forest massifs of the Chimyan Mountains as grafts for pears. These grafts are long-lived grafts that are winter-resistant, grow strongly, have deep roots, and grafted cultivars are well preserved. Some of them multiply from the rhizome. Examples of local varieties include pears belonging to the Tashkent pear, Kulola, Shakar murut, Noring, Almurut, Tianshan group.

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