



LEMON VARIETIES GROWN IN UZBEKISTAN

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ABSTRACT

This article provides information on the cultivation of lemons in the climatic conditions of Uzbekistan only in greenhouses, the possibility of creating an artificially favorable environment for it, and that lemons begin to bear fruit in October, and some varieties in December-January.

Growing conditions- In the climatic conditions of Uzbekistan, lemon can be grown only in greenhouses, creating an artificial favorable environment for it. Lemon begins to bear fruit in October, and in some species - in December-January. The cold resistance of lemons is low, frost resistance - 2-2.5 ° C. Its fruits freeze already at -3-4°C, leaves and young branches of a tree freeze at a temperature of -6-7°C, and the whole plant can freeze already at a temperature of -8-9°C. For the growth and formation of fruits, the condition of the soil is of great importance. Silty soils, well-structured soils, and highly saline soils are not suitable for lemon. It needs medium-sandy soil, regular watering and good air permeability, which will help to enrich the soil with nutrients. Despite the fact that caring for a lemon in a greenhouse is expensive, however, the yield in the artificial environment is higher. So, when growing in trenches, 200-250 fruits are removed from a bush, and in a greenhouse you can get a yield of up to 400-500 lemons. One of the conditions necessary for obtaining a stable yield is the adaptation of growing conditions to the requirements of a particular variety. Varietal trials and production trials show that the Meyer, Firstborn of Uzbekistan, and Willy Frank lemon varieties are suitable for growing in greenhouses from seed. Citrus seedlings can be transplanted in the second half of March in the southern regions of Uzbekistan and in the first half of April in the northern regions. To transplant lemon seedlings into the greenhouse soil, it is necessary that it be well leveled and dug up to a depth of 50-60 cm. 60-80 tons of rotted manure, 600 kg of superphosphate and 150 kg of potash fertilizers are applied per hectare. The citrus seedling must be healthy and well developed. 10-12 days before transplanting into the soil, the greenhouse should be watered until completely moistened. In autumn, a lemon seedling for planting should be with soil attached to the root, otherwise part of the seedling may dry out. When transplanting, it is necessary to cut off excess branches that thicken the bush and damaged roots. Seedlings can be planted in a row with an interval of 1 m from each other in the first year, and after a year, all excess seedlings must be dug up. Lemons should be



harvested no later than the moment when the skin begins to turn yellow or when the diameter of the fruit is about 5-6 cm. It is not worth picking fruit on dry days. Fruits picked on hot days can rot quickly. When transporting a box of lemons, do not shake vigorously so that the fruits do not lose their shape. 10-12 days before transplanting into the soil, the greenhouse should be watered until completely moistened. In autumn, a lemon seedling for planting should be with soil attached to the root, otherwise part of the seedling may dry out. When transplanting, it is necessary to cut off excess branches that thicken the bush and damaged roots. Seedlings can be planted in a row with an interval of 1 m from each other in the first year, and after a year, all excess seedlings must be dug up. Lemons should be harvested no later than the moment when the skin begins to turn yellow or when the diameter of the fruit is about 5-6 cm. It is not worth picking fruit on dry days. Fruits picked on hot days can rot quickly. When transporting a box of lemons, do not shake vigorously so that the fruits do not lose their shape. 10-12 days before transplanting into the soil, the greenhouse should be watered until completely moistened. In autumn, a lemon seedling for planting should be with soil attached to the root, otherwise part of the seedling may dry out. When transplanting, it is necessary to cut off excess branches that thicken the bush and damaged roots. Seedlings can be planted in a row with an interval of 1 m from each other in the first year, and after a year, all excess seedlings must be dug up. Lemons should be harvested no later than the moment when the skin begins to turn yellow or when the diameter of the fruit is about 5-6 cm. It is not worth picking fruit on dry days. Fruits picked on hot days can rot quickly. When transporting a box of lemons, do not shake vigorously so that the fruits do not lose their shape. otherwise, part of the seedling may dry out. When transplanting, it is necessary to cut off excess branches that thicken the bush and damaged roots. Seedlings can be planted in a row with an interval of 1 m from each other in the first year, and after a year, all excess seedlings must be dug up. Lemons should be harvested no later than the moment when the skin begins to turn yellow or when the diameter of the fruit is about 5-6 cm. It is not worth picking fruit on dry days. Fruits picked on hot days can rot quickly. When transporting a box of lemons, do not shake vigorously so that the fruits do not lose their shape. otherwise, part of the seedling may dry out. When transplanting, it is necessary to cut off excess branches that thicken the bush and damaged roots. Seedlings can be planted in a row with an interval of 1 m from each other in the first year, and after a year, all excess seedlings must be dug up. Lemons should be harvested no later than the moment when the skin begins to turn yellow or when the diameter of the fruit is about 5-6 cm. It is not worth picking fruit on dry days. Fruits picked on hot days can rot quickly. When transporting a box of lemons, do not shake vigorously so that the fruits do not lose their shape. when the skin begins to turn yellow or when the diameter of the fruit is about 5-6 cm. Picking fruit on dry days is not worth it. Fruits picked on hot days can rot quickly. When transporting a box of lemons, do not shake vigorously so that the fruits do not lose their shape. when the skin begins to turn yellow or when the diameter of the fruit is about 5-6 cm. Picking fruit on dry days is not worth it. Fruits picked on hot days can rot quickly. When transporting a box of lemons, do not shake vigorously so that the fruits do not lose their shape.

Variety "Meyer" is a natural hybrid of lemon and orange. Lemons of this variety grow on a low small tree. The leaves are oblong, with small "wings" on the leaf stripes. They begin to

harvest in the second or third year, the fruits appear in October. Lemons of this variety come in different shapes: oblong-smooth, round or pear-shaped, medium and large, reaching a mass of 80-100 g. The peel is thin, smooth, orange, with a unique aroma. The pulp is thin, filled with juice, there is a small amount of seeds: 6-10 pieces per fruit. The fruit has a short shelf life, but these lemons ripen in great abundance every year. This variety is most common in Uzbekistan, gives a plentiful and regular harvest of good quality.



Figure 1. Morphological appearance of the Meyer lemon variety.

Variety "Messenian lemon" -non-selective variety. The tree is very tall, pyramidal in shape, branches with large thorns. The leaves are medium in size, elongated, there are small "wings" on the leaf stripes. Harvest from the tree begins to be harvested in the third year. The fruits appear in December-January. The tree bears fruit every year and gives a big harvest. Lemons of this variety are medium and large in size, reach a mass of 100-120 g, the shape is oblong with a slight bulge. The peel is thick, light yellow. The core is sour, with a pleasant taste, very aromatic. There are no more than 6-8 seeds in one lemon.

Variety "Pavlovsky" -variety was the result of research breeders. The height of the tree is 1.5-1.8 m with thorns. Blooms twice a year in March-April and October. The appearance of new buds usually causes the previously formed ones to fall off. Lemon cuttings begin to bear fruit 2-3 years (sometimes 4 years) after rooting. The fruits ripen after 8 months in November-May. The quality of its smooth and shiny fruits is not inferior to varieties grown in the south of the republic. 100 g of fruit contains 25-57 mg of vitamin C. The weight of the fruit is 150-180 g. Due to the relatively large fruits, the yield is low: 10-15 pieces from a lemon bush if it is planted in pots. This variety is negatively affected by dry air, darkness and bright sunlight. Long branches of the plant should be cut, giving them a shape. The variety reproduces well vegetatively (from cuttings).



Figure 2. Morphological view of the lemon variety "Pavlovsky"

Variety "Novogruzinsky". The tree reaches a height of 2-2.5 m, very deciduous and branched. Requires pruning of branches growing upwards. The leaves are light green, thin, 12-14 cm long and 5 cm wide. Yields all year round. Flowers large, white. Unlike other varieties, it blooms at the end of the year and then begins to bear fruit. Egg-shaped fruits, fruit weight 110-150 g, almost pitted.



Figure 3. Morphological view of the Novogruzinsky lemon variety

The fruits of this variety are rich in vitamin C: 10 g may contain more than 58 mg. Sort "Tashkent". This variety and the Yubileiny variety were bred by Z. Fakhriddinov. The height is medium, the leaves are dark green, the flowers are small. Blooms twice a year (spring and autumn). Gives relatively small fruits 80-90 g. The peel is thin, golden in color. When grown on the ground, the height of the tree reaches from 1.5 to 3 m. The variety is photophilous and needs high humidity.

Variety " Yubileiny " Growing up to one and a half meters in height, it has year-round flowering. The first crop appears after the first year and can reach one kilogram. Ripened fruits are large in size, their ripening lasts about 8 months, depending on the condition of the soil, air humidity and care. To prevent the branches from breaking due to the weight of the lemons, they are tied to the trunk.



Figure 4. Morphological view of the Yubileiny lemon variety.

The crown of the tree is made independently. But it is important to monitor its uniform growth. Strong branches are strewn with dense leaves of dense green color, slightly elongated and pointed at the ends. During the flowering period, flowers appear, consisting of a dozen inflorescences. And the famous persistent and fresh fragrance comes from the biologically active substance and essential oil, which come out of the smallest holes on the branches.

Lemons of this variety have a dense peel and little pronounced taste.

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Figure 5. Morphological view of the Tashkent lemon variety.

Benefit for health- Two tablespoons of lemon juice contains half of the daily human need for vitamin C. It, in turn, strengthens the immune system, protects the body from viruses and bacteria, accelerates wound healing, slows down the aging process, cleanses toxins, participates in the synthesis of hormones, reduces blood pressure. Lemon also invigorates, relieves fatigue and drowsiness, fights nausea, improves intestinal motility, rejuvenates, replenishes the lack of vitamins and minerals in beriberi. Lemon has a cosmetic whitening effect on the skin, tones it and regulates the sebaceous glands. The potential benefits of lemons are as follows: reduced risk of stroke; cancer prevention; improvement of complexion; asthma prevention; improved absorption of iron. One lemon fruit contains about 2% sugar, 6–8% various acids (mainly citric acid), more than 1% pectin, about 0.5% various mineral salts, 60–90 mg of vitamin C, as well as vitamins A, B1, B2, PP.



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