## CITRUS PLANT GRAPEFRUIT (C.paradise M.)

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## INTRODUCTION

Botanically and pomologically, the grapefruit is a very close relative of the pompelmus, and many botanists consider it a subspecies of the pompelmus. Grapefruit is not found in the wild. Its origin is still unknown. According to scientists, it originated from the planting of pompelmus seeds in the Antilles about 200 years ago, and from there it was brought to Florida, where it became popular from 1880. However, in the 1930s, the typical grapefruit was found endemically in Indonesia, where it is much less common than the pompelmus. Some scientists believe that grapefruit is a mutant of pompelmus. But the majority of researchers support the idea that grapefruit originated from the natural hybridization of pompelmus and sweet orange. Polyembryonicity of grapefruit seeds, in contrast to monoembryonicity of pompelmus seeds, can be a proof of this.

According to scientists, grapefruit is a small tree growing in the conditions of Uzbekistan from 2.5 to 3 meters in height. In hot countries, grapefruit is a medium to tall tree (up to 15 meters). It differs from pompelmus by hairlessness of young shoots, thinness of branches, smaller size of leaf blade and leaf blade.

Its flowers are white in color, smaller in size than those of pompelmus, and usually collected in a small shingle-like inflorescence. Fruits are often placed in small clusters of 2-5, but single fruits are also found. Fruits are always round or slightly flattened, never pear-shaped or strongly leafy like the pompelmus. The color of ripe fruits is lemon yellow. The flesh is yellow, rarely pink or red. The pink color of the meat (Foster variety) is due to the presence of lycopene pigment.

The taste is always weak or strongly quinine bitter. There are always many seeds (up to 60-70), but there are also seedless forms. The seed is multi-branched and less flat than the pompelmus seed.

Grapefruit is closer to orange in terms of climate requirements and frost resistance, but it tolerates heat and atmospheric drought much better than orange.



1-Pic. Grapefruit.

Grapefruit grows well both in humid tropics and in constant hot climates. At the same time, it can be successfully grown in subtropical regions where the sum of heat is around 4500-4800°. Therefore, in the conditions of the Krasnodar region of Russia, such varieties of grapefruit as Yubileynyy, Marsh bessemyannyy, Sidnee, Gulriisky, Duncan are grown. The agricultural technique of its cultivation is similar to that of oranges and other citrus plants.

In the climatic conditions of Uzbekistan, grapefruit is grown in greenhouses as a small growing tree. The taste of grapefruit grown in hot countries is very sour, and according to experimental observations, the yield of grapefruit grown in Uzbekistan is very high, and the taste is sweet and sour.

## CONCLUSIONS

1. Grapefruit pomelo "Uzbegim" citrus plant variety was determined by the re-selection method of resistance to fruitful diseases and quick ripening, and the selection was based on the study and analysis of seed production processes.

2. Grapefruit "Uzbegim" citrus plant variety and tangerine under different greenhouse climatic conditions based on the analysis of Tashkent citrus plant varieties, it was determined that grapefruit "Uzbegim" citrus plant variety is resistant to cold and disease in the water deficit regime compared to the optimal regime .

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