

## QUALITY INDICATORS OF ORIENTAL MAPLE SEEDS

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**Introduction.** Maple (*Platanus*) is a tree of the Maple family with a thick trunk. The body is strong, 50 m high, covered around the circumference with green-gray crumbling bark. The leaves are arranged alternately and consist of claw-shaped wings. The fruit is multi-nutty, spreads by the wind, and is stored on the tree itself in winter. There are about 10 species [2].

Oriental maple - *Platanus orientalis* is found naturally in the Caucasus. A tree 55-60 m high, living for 2000 years. Tree with thick branches. The bark is light green, large mat-like, the plate is irregular in shape, the leaves are 10-20 cm wide, the base is broad maple. Fruit heads, 2-3 in number, fall off in the spring and are carried by the wind [1].

Maple grows quickly, especially when young (1.5-2 m per year). Light-loving, moisture-loving, grows well in well-cultivated soil. Frost resistance - 15°C [5].

Maple's are one of the deciduous trees with many unique patterns, with beautiful and lush branches, light spots on the trunk, decorative branches and spherical fruits. Considering the valuable scenic properties of the maple, in many European cities the plane tree displaces short-lived trees: chestnut, maple, linden, willow, etc. [2].

Due to its physical and mechanical properties, maple wood is used for the manufacture of expensive furniture, high-quality parquet floors, turning products, etc. [6].



Maple's live a very long time. This is the largest tree that has been growing in the Valley of the Great Trees of Turkey since ancient times. Its height is 50 m, its circumference is 42 m, its diameter is 13.4 m, and its age is more than 2300 years. Around the island of Kos and in the Aegean Sea, a huge maple grows, the circumference of its trunk reaches 18 m, and its height is 36 m. Its age is 2000 years [3].

A maple grows in Turkmenistan, which is more than 2000 years old. In Nagorno-Karabakh, in the Martuni region, in the middle of an old maple grove, a mature maple grows. Its height is 54 m and its circumference is 31.5 m [4].

**Research method.** Many biochemical processes occur during the period after collection and planting of oriental plane seeds. These biochemical processes can affect the quality and quantity of seeds as a result of long-term storage. With long-term storage of seeds, their viability decreases. In our experiment, we focused on studying the relationship between seed viability and moisture. Many scientists who worked with seeds of different plants came to conflicting opinions regarding moisture absorption and seed viability. Many scientists believe that moisture absorption by seeds is a physiological process, so viability does not depend on moisture absorption.

According to the results of S.M. Ablaev's research on the effect of living and dead seeds on humidity, living seeds absorb moisture faster than dead ones. According to the results of his experiments with white saxaul seeds, he believes that there is no difference between water absorption and seed viability.

An important role in growing seedlings is played by high seed germination. When collecting seeds from the mother tree, it is necessary to pay attention to the hereditary characteristics of this tree.

Until the 70-80s of the last century, when the quality of tree and shrub seeds was assessed, their purity and fertility were understood. Seed germination was insignificant.

**Results of the study.** Giving a full description of the quality of the seeds of the oriental maple, it is necessary to pay attention to its genetic



characteristics, fertility and growth potential. It is known that there is a correlation between fertility and growth potential. When the growth rate is low, the fertility rate is also low. The growth force indicator - if it changes positively or negatively under the influence of a certain factor, this allows us to think about the fertility of the seed and its importance in cultivation.

Before sowing the seeds of the oriental maple, they were soaked in water. Because the high level of soil moisture in the homeland of the oriental maple, i.e. on the Balkan Peninsula, determines its high need for water.

Analysis of quality indicators of oriental maple seeds

Species name	Seed quality indicators			
	weight of 1000 seeds, g	purity, %	germination rate, %	viability, %
Eastern maple	3,9±0,31	94,9±0,54	76,2±0,79	80,0±0,06

During the research it was established that the weight of 1000 seeds of the oriental maple is  $3.9 \pm 0.31$  g, purity  $94.9 \pm 0.54\%$ , germination  $76.2 \pm 0.79\%$ , viability  $80.0 \pm 0.06\%$ .

**Conclusion.** The very low germination of oriental maple seeds requires studying the effectiveness of treatment with growth stimulants. Because many scientists have noted that currently created growth stimulants increase seed fertility.

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