



PROPAGATION OF THE TIEN SHAN SPRUCE BY SEEDS

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Relevance: In the context of climate change and urbanization, the introduction and cultivation of ornamental and ecologically significant tree species is of particular importance. The Tien Shan spruce is a valuable species of coniferous plants that is highly decorative and resistant. The study of its seed propagation in the Turkestan region is of practical and scientific significance.

Objective of the study:

To determine the possibilities of growing Tien Shan spruce (*Picea schrenkiana*) from seeds in the conditions of Turkestan and to identify the optimal conditions for their germination and further growth.

Materials and methods:

As the source material, spruce seeds obtained from Turkey were used. Before sowing, they were pre-soaked and kept in a thermostat at 22 °C in moist sand. A total of 30 seeds were used for the experiment. The seeds were sown in a mixture of sand and peat at a temperature of 24 °C and a humidity level of 60 %. The plants were regularly watered and fertilized with mineral elements every 15 days.

Results:

After 58 days, the first sprouts appeared, and on the 69th day, 23 of the 30 seeds germinated (with a germination rate of 76.6 %). After 3 months, the average height of the seedlings reached 2.8 cm, and by 6 months, it had reached 4.7 cm. Regular fertilization contributed to the active growth and development of the seedlings.

Conclusions:

The experiment showed that seed propagation of the Tien Shan spruce is possible in the conditions of the Turkestan region, provided that the optimal temperature and humidity conditions are maintained. This method can be used for introduction and landscaping projects, as well as for the conservation and expansion of the range of coniferous species.