

Current State of Forest Shelter Belts with Predominance of English Oak (*Quercus Robur L.*) of the Stone Steppe

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In article the problem of the current state and adaptation potential of *Quercus robur L.* of the Central Russian forest-steppe, growing in different conditions of the mesorelief, on the example of middle-aged windbreak forest fields of the Stone Steppe of Talovsky district of the Voronezh region is considered. Forest shelter belts of the Stone Steppe are result of long-term experience of steppe afforestation. The foundation of scientific research in the Stone Steppe has been laid by V.V. Dokuchaev in 1892. He has organized the Special expedition to the Stone Steppe. By data A.G. Akhtyamova [1], today *Quercus robur L.* occupies 61.5 % as a part of forest belts of the Stone Steppe. Forest belts with prevalence of this breed occupy 38 % of the total area of forest plantings here [2]. Many field-protecting afforestations of the Stone Steppe with participation of an oak still are a standard of cultivation of the wood in the steppe. It is a basis of the long-living, effectively working forest shelter belts. High with powerful krone trees of the oak have considerable ecological capacity, effectively support optimum parameters of a wind permeability, promote creation of a favorable microclimate on adjacent fields.

The purpose of our research was selection of trees of *Quercus robur L.*, growing in contrast conditions of a mesorelief of the Stone Steppe, assessment of their vital state and the analysis of morphometric characteristics.

In article an assessment of a vital condition of trees of *Quercus robur L.* of forest shelter belts of the Stone Steppe growing in contrast forest vegetation conditions is given.

In 2017 in a result of selection inventory of forest belts of the Stone Steppe the forest belt №133 growing on the water separate site has been selected. In her 40 model trees – 20 trees growing on a plakor and 20 – on a slope are chosen. The study shown that the range of variability of diameter of trees of control group is 35–69 cm with an average of sign – 50.3 cm. Diameter of skilled group of trees (slope type of the area) varies from 14 to 46 cm, with an average – 29.7 cm. Height of trees of control group is in borders of 19 – 24 m (average value of 21,3 m), and at trees of skilled group she changed from 11,5 to 22,7 m (the average value is 17,6 m).

Authors come to a conclusion that biometric characteristics of trees of *Quercus robur L.* depend on conditions of habitat – a mesorelief of a forest-steppe zone and also on optimum structure, mixture and density main and the accompanying tree species on the silvicultural square.

References

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