

AGROSYM

BOOK OF ABSTRACTS



*XV International Scientific Agriculture Symposium
"Agrosym 2024"
Jahorina, October 10-13, 2024*

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CROWN CHARACTERISTICS IN THE BEECH STAND DAMAGED BY ICE STORM IN THE EASTERN SERBIA

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Abstract

The paper presents the crown characteristics of beech trees damaged by the ice storm, as well as the structural and production characteristics of the investigated stand. The stand has been defined phytocoenologically as the mountainous beech forest (*Fagetum moesiacaе montanum*) on different brown soils. The stand is located in the area of Čestobrodica in Eastern Serbia, at an altitude of about 600 m, on a slope between 11° and 15°. The age of the stand is 90 years, the distribution of trees by diameter classes is a typical for even-aged structure. Number of trees per hectare is 200, basal area is 23.22 m²/ha, total volume is 322.3 m³/ha, and the volume increment is 4.8 m³/ha. The mean stand diameter is 38,4 cm, while the mean diameter of dominant trees is 50.9 cm. The mean stand height is 25.3 m, and the height of the dominant tree is 27.8 m. The secondary crown has been formed by 61.2% of the trees, with more than half of the trunk covered by secondary branches, while 10.2% of the trees have shown drying from the top, with thicker branches over 1 m long drying. The average crown damage is 44.4%. Average of relative crown length is 47.6%. The results of the research on the characteristics of tree crowns indicate that the crowns are reduced and severely damaged by ice storm.

Keywords: *beech, crown characteristics, ice storm.*