

THE INFLUENCE OF THE PLANTATION SCHEME TO STRUCTURAL PARAMETERS IN YOUNG SPRUCE STANDS

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ABSTRACT

The paper presents the results of the research carried out into an experimental plot installed using different plantation scheme for spruce, following the influence of the initial density of plantation to indicators of the structural structure. That was built, in 1977, with four repetitions and each with four work variants: 2500 plants to hectare, 3300 plants to hectare, 5000 plants to hectare and 7510 plants to hectare.

The main studied topics, at 25 year stand old, were: the evolution of the biometric parameters (DBH, height corresponding to the DBH, number of the trees to hectare, stand volume per hectare, density indicators), dynamic of the stability parameters (slender stem coefficient, percent of the crown height) and dynamic of the qualitative parameters (damages frequency produced by deer, average damage age, percent of the stem decay). Finally, it was possible an evaluation of the structural parameters dynamic correlated with number of plants used at stand installation.

This research brought up some unknown aspects that can be considered as new contributions concerning the influence of the plantation scheme to structural parameters in young spruce stands for a sustainable forest management in mountainous ecosystems affected by disturbance factors.

Keywords:plantation scheme, spruce, structural parameters