

A study of the Response of Spruce Trees to Pruning by Using the Instrument Complex Field-Map

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Increase the quality productivity of forests, combining quantitative and qualitative parameters of all trees and each tree individually, as well as improving the properties of manufactured wood, is one of the priority directions of development of forestry.

The most effective way to improve the properties of moulded wood is considered to be pruning, which is part of the comprehensive care of the forest and is a necessary element of intensive forest management.

Application timely multireception pruning allows us to grow high-quality branchless wood with a homogeneous structure and improved physico-mechanical and acoustic properties [1]. In countries with a developed forestry, this silvicultural method is considered the necessary care of the forest and almost classic example of the profitability of the investment [2].

The use of electronic devices: laser range finders, electronic measuring forks, global positioning devices (GPS) and field computers allowed the collection of field information with a high degree of accuracy and the formation of different databases.

The article examines the impact of pruning of moderate intensity (28% of the length of the crown) on the shape of the butt part of the stem in spruce plantations using the instrument complex Field-Map. This complex developed by the Czech research institute of forest ecosystem (IFER).

The studies have established that after 30 years of pruning to a height of 7,5 m there are no significant differences in the values of absolute and relative taper on experimental and control trees, which is confirmed by data of analysis of variance.

References

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