

Estimation of Growth Variability in Different Forms Scots Pine in Conditions of Constant Overwetting of Soils in the Middle Taiga

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Pine is the main forest-forming species in the European North of Russia. It represents a complex polymorphic species and differs within the limits of one population according to morphological forms. Radial growth is a universal indicator of tree growth, plantation productivity, an important taxation parameter and an indicator of the state of the environment. Two pine forms are distinguished in the shrub-sphagnum pine forests according to the habitus of the crown: «normal» and «swamp». The «swamp» form differs from the trees of the «normal» pine by a strong lag in growth and acquires in most cases an ugly appearance. Studies of the growth of different forms of pine were carried out in the middle taiga of the Arkhangelsk region. The laying of trial plots is carried out by the standards accepted in the forest management practice, forestry and taxation characteristics of the plantations are carried out by the generally accepted methods. Processing of wood core is performed by dendrochronological methods.

The analysis of growth of the «normal» and «swamp» forms of pine in the conditions of constant overwetting of soils in the middle taiga is carried out in the article in terms of the main morphometric parameters. It is established that in the «swamp» form at the age of 150–160 years, the average values of the morphometric parameters of the trunk, crown and cones are lower than in the «normal» pine. Significant differences in mean values of radial growth were revealed in tree-ring rows in different forms of pine.