

Dynamics and Condition of Spruce Stands in the Udmurt Republic

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Key words: spruce stands, dynamics of the area and condition of spruce stands, absolute completeness, dead wood, timber stock, succession, plant stability, tannins

The article deals with issues related to the problem of reducing spruce stands on the territory of the Udmurt Republic. The reduction in the area of spruce stands is typical for all regions where a high proportion of spruce in the species composition of plantations. The dynamics of the area of spruce stands on the territory of the Republic was analyzed for the period from 2009 to 2015 based on the analysis of information contained in the State forest register, as well as on the results of field surveys. It was found that updated information often does not reflect the actual situation. So on trial areas, according to forest management, there are stands of spruce with a reserve of 250 m³/ha, while in fact low-field stands grow here. According to research data, the absolute completeness of plantings varies from 2.95 to 11.1 m²/ha. There is a significant stock of dry wood that exceeds the stock of raw-growing forest. A large amount of dead wood biomass increases the risk of forest fires occurring and spreading. In terms of productivity, the studied spruce stands belong to the III-IV class. When comparing the diameters of living and dead spruce individuals, it was found that the most productive trees are killed first, most of the dead trees have a trunk diameter above average. The essence of the above is that the lack of modern field and remote surveys of plantings does not allow us to obtain reliable information about them. Also, in the course of research on trial areas, individuals of spruce were identified that have a good life condition, which may indicate the individual characteristics of growing trees. Thus, in the zone of active distribution of xylophages in preserved trees, there is an increase in the content of tannins in wood. Their detailed study and subsequent mapping will allow the use of sustainable plants for reforestation.