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**THE DEPENDENCE OF THE FIRE OF FOREST PLANTATIONS
BOYARKA FOREST EXPERIMENTAL STATION ON THE AGE
STRUCTURE, FOREST GROWING CONDITIONS AND
RESERVES OF FOREST COMBUSTIBLE MATERIALS**

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Forest plantations of the Boyarka Forest Experimental Station occupy an area of 16.258 thousand hectares, of which pine stands grow on an area of 13.709 thousand hectares, including: young stands – 1.848 thousand hectares, medieval – 8.408, maturing – 2.448 and ripe and over mature – 1.008 thousand hectares. During the analyzed period 2004–2016 more both in quantity and in area of fires eliminated in young stands (26.8 and 53.3 %, respectively) and middle-aged pine stands (15.6 and 60.3 %). It was established such a distribution of forest fires in plantations growing in forest growing conditions: 64.6 % of them occurred on the territory of fresh burs and 27.9 % of the total number of forest fires in pine stands growing under conditions of growing fresh sugrud [1]. A lower level of fire danger in forest conditions of fresh sugrud is explained by the greater share of deciduous tree species growing in them, which are much less fire-dangerous. In the pine stands of 15 years of age, the largest proportion of the litter layer was found, which consists mainly of needles, which contains flammable resinous substances and essential oils. It is known that the thickness of the forestlayer plays an extremely important role in terms of the rate of burnout in the fire of above-ground forest combustible materials. It has shown that their stocks increase with the age of pine forests. Thus, small reserves and thickness of forest litter were found in pine young stands, and the greatest thickness of its layer was recorded in middle-aged pine stands, then this trend has a decreasing character with increasing age of plantations to 80 years. It has been established that the reserves of the humified layer of forest litter in pine plantations of the 2nd age class are 3.5 tone / ha, and in pine stands of the 7th age class – from 21.5 to 42.2 tone / ha [1].

References

1. Yavorovsky P.P. Hurzhii R.V. Analysis of the fireiness of forest plantations of the Boyarka Forest Experimental Station for 2004–2016. *Silviculture and agrolisomeration*. 2017. Vol. 131.P. 158–164.