Comparative Analysis of Structure and Maintenance of Some Extractive Components of Wood and Bark of the Aspen (*Populus tremula* L.)

N. R. Garipov *– Russian Research institute for Silviculture and Mechanization of Forestry, East European Forest Experimental Station, Researcher, Candidat of Agricultural Sciences, Kazan, Republic Tatarstan, Russian Federation, tatlos@rambler.ru*

Keywords: *aspen, wood, bark, components, extractive substances*

Research objective approbation of methods of extractive extraction of components from wood and bark of an aspen.

Preparation and cutting of tests of wood and bark of an aspen for the chemical analysis; definition of the content of water in wood and bark of an aspen; definition of substances, flying with water vapor; definition of substances, soluble in organic solvents; definition of substances, soluble in cold water; definition of substances, soluble in hot water; the analysis of extractive substances of wood and bark of an aspen was carried out by the standard technique, stated in the Praktikum po himii drevesini i sinteticheskih polimerov under V. I. Azarov's authorship [1]. The prevailing extractive substances in bark (17–21 %) and wood (4,3 %) of an aspen are water-soluble components, then extractive substances, soluble in organic solvent, in bark – 14,3 %, in wood – 0,7 %. Extractive substances, flying with water vapor make 0,1 % at wood and 3,3% at bark. The content of the condensed tannins at wood the smallest indicator of extraction – 0,04 %, whereas at bark – 3,4 %.

On the example of an aspen some opportunities of use of biologically active agents of a tree which the range of the received production in the long term will allow to expand, and as a result, to increase efficiency of processing of bark – withdrawal of the existing technologies of wood are outlined.

References

1. Azarov, V. I. Workshop on chemistry of wood and synthetic polymers: Stud. posob. / I. Azarov, A. Vinoslavskij, G. N. Kononov. – M. : MGUL, 2006. – 249 p.