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Reforestationon South-East Sands Russia: Modern Problems and Challenges

T. Turchina
South European Forest Research Experimental Station, The Branch of Russian Research Institute for Silviculture and Mechanization of Forestry,
Deputy Director for Scientific Work, Doctor of Agricultural Sciences,
St. Veshenskaya, Rostov region, Russian Federation, tatturchina@mail.ru

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The author analyzed results of actions for artificial regeneration on sands and sandy soils in steppe zone of the European part of Russia. The low performance of regeneration is stated: for the 10-year period (2008–2017) more than 50% of the created plantings died.

The list and the analysis of factors of plantings low survival on sands is provided in article. According to the author, it is caused by the reasons of climatic, ecological, technological, organizational and financial character. Them are:

–heavy weather during creation and in the first years of growth of forest cultures;

–discrepancy of forest vegetation conditions on sites of regeneration to ecological requirements of the grown-up woody plants;

–lack of the ecological differentiated technologies of regeneration;

–use of the equipment with high share of physical wear;

–ecological discrepancy of separate technological operations;

– ignoring of level of mutual influence of tree species during creation of the mixed cultures;

– use of not certified planting stock;

–lack of long-term planning of regeneration, “data bank” of the areas needing regeneration and to reforestation.

On the basis of the analysis of Forest plans of the Russian Federation subjects for 2019–2028, the author comes to conclusion that during their action of cardinal improvement of situation will not occur.

Result of the conducted research were recommendations of the author about increase in efficiency of artificial regeneration and reforestation. The following measures are proposed:

–implementation of soil and ecological mapping of the territory of forest district for the purpose of definition of forest suitability soils and species diversity of the grown-up plants, including on perspective;

–definition of locations where recovery of plantings can be provided due to carrying out measures of assistance to natural regeneration;

–development of ecologically differentiated types of forest cultures;

–formation of system of the state order at cultivation of planting stock;

– inspection of not forest lands of forest resources for the purpose of definition of their suitability for cultivation of antierosion plantings, establishments of priority of purpose of sites for reforestation;

– modification of forest plans of territorial subjects of the Russian Federation regarding design of reforestation on not forest lands of forest resources.