

Assessment of Forest Fire System of the Country

N. Korshunov

Russian Research Institute for Silviculture and Mechanization of Forestry, Head of the Department of Forest Pyrology and Forest Fire Protection, Candidate of Agricultural Sciences, Pushkino, Moscow region, Russian Federation

V. Savchenkova

Russian Research Institute for Silviculture and Mechanization of Forestry, Chief Researcher, Doctor of Agricultural Sciences, Pushkino, Moscow region, Russian Federation

A. Perminov

Russian Research Institute for Silviculture and Mechanization of Forestry, Senior Researcher, Pushkino, Moscow region, Russian Federation

M. Kalinin

Russian Research Institute for Silviculture and Mechanization of Forestry, Graduate student, Russian Federation, Pushkino, Moscow region, Russian Federation

Key words: forest fire formation, number, air separation, fire-chemical station, forest fire.

The article is devoted to the study of the state of the system of basic components that make up forest fire formations and have an impact on the entire system of forest fire protection. The actual problem of increasing the efficiency of the forest fire protection system in terms of rationing the working process of forest fire formations was also studied. Quantitative indicators of the analysis of modern forest fire infrastructure were given, as well as their comparison with the data that were in the period of the old Forest code. They show the need to solve from a scientific point of view with the analysis of long-term statistical data and the use of modern methods of information processing. In this regard, the legal regulations were analyzed, which regulate the provision of forest fire units, including in related departments, and information about the available resources of fire fighting studied. Evaluation of the data was carried out, which include such parameters as the coordinates of the locations of forest fire formations, their type, number of employees, the number and composition of machinery and equipment, their wear and tear, etc. A survey of regional specialists was conducted on the possible optimal composition and number of machinery and equipment, after processing of which a database containing information on 1,467 structural forest fire formations was compiled. A detailed analysis of the situation in some regions revealed the facts of unjustified inclusion of forest firefighters, forestry workers and inspectors engaged in forest supervision. Forest plans and master plans for extinguishing of forest fires of Russian Federation subjects were analyzed for regions in which there were discrepancies of the data with the available information. The assessment of the spatial location of forest fire formations showed that in the European part of the country the network of fire-chemical stations is the most developed, in some regions even excessive both in the number of stations and the number of equipment.

There is a paradoxical phenomenon when on a set of fire-chemical stations there are only 2–3 workers. The number of pieces of equipment exceeds the actual number of employees. This indicates that the resources available in the region are not being used optimally. The main problems that need to be addressed in order to improve the effectiveness of the forest fire protection system have been identified.