

INFLUENCE OF WAYS OF SEEDING AGRICULTURAL CROPS ON THE INTENSITY OF EROSION PROCESSES AND YIELD OF AGRICULTURAL CROPS ON SLOPE LANDS OF KABARDINO-BALKARIAN REPUBLIC

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The article presents the results of a study of the influence of sowing methods on soil erosion and the yield of spike crops and soybeans in the conditions of sloping agriculture in Kabardino-Balkaria. It has been shown that in order to combat water erosion in crops of cereal crops, the method of sowing and the direction of movement of aggregates with respect to the fall of the slope are of great importance. The anti-erosion role of such sowing is that each row of plants slows down the surface runoff of rainwater, precipitates and retains agitated soil particles, reduces runoff, improves plant growth and development, helps to preserve soil fertility, increases their protective role and yield.

It was revealed that the replacement of longitudinal sowing of cereal crops with transverse is one of the most important soil-protective agricultural practices on sloping lands with steepness from 3 to 6.2^o, contributes to a 1.7-fold decrease in soil erosion and an increase in the yield of continuous sowing crops by 2.5-2,6 c / ha due to a more uniform distribution of the main limiting factor of moisture along with the main nutrients dissolved in it.

The results of studies on the protection of soils from water erosion are recommended to be included in the system of mandatory technological operations for the cultivation of continuous crops in the foothill, mid-mountain and mountain climatic zones of Kabardino-Balkaria.

In recent years, research institutions have proposed many anti-erosion measures aimed at further development of the issues of the theory and practice of soil-protective agriculture in the zonal aspect and, above all, the influence of the mechanism of erosion processes on changing soil fertility and the development of separate soil-protective methods and regional complexes.

However, these anti-erosion measures can give a positive result when they are tested in various regions, taking into account the peculiarities of the natural and climatic conditions of the republic.

The aim of this work is to study the influence of sowing methods on the intensity of erosion processes and crop yields on the slope lands of the Kabardino-Balkarian Republic.

The studies were carried out in the mid-mountain zone of the Kabardino-Balkarian Republic, with altitude 960m above sea level, the sum of effective temperatures above 10° C - 2600° C, the amount of precipitation 700-780 mm, hydrothermal coefficient - 1.4.

Research work on the topic "Study of the influence of soil-protective systems of agriculture on the intensity of erosion processes and crop yields in conditions of sloping agriculture" has been carried out since 2017. The results of scientific research are published annually in peer-reviewed journals of the Russian Federation. This article presents the results of research for 2019.

Keywords: slope lands, sowing methods, slope options, erosion processes, precipitation intensity, slope steepness, accounting profile, soil washout, water weeds, fertility, yield.

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