

OBTAINED RESULTS REGARDING THE OPTIMIZATION OF GRAIN SORGHUM TECHNOLOGY IN PEDOCLIMATIC CONDITIONS FROM CENTRAL OF MOLDOVA

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Abstract

In recent decades in Romania and in many other regions of the world, there is a high frequency of drought years, to three years out of every five. This climate negatively affects the productivity of agricultural crops, and agricultural research must find solutions to diversify the assortment of crops that in tougher environmental conditions guarantee the stability and profitability of agriculture. One of the safest solutions is the cultivation of sorghum, whether for grain or biomass, which due to good drought resistance, the ability to withstand high temperatures and capitalize on poorly fertile land is superior by the yields of all crops and especially, cereals and fodder plants. In the pedoclimatic conditions from the Center of Moldova, starting with 2018 year, were initiated some researches regarding the optimization of the cultivation technology for grain sorghum, in order to create a technology in relation to the new climatic conditions and in relation to the protection of the environment. The results obtained on average over two agricultural years, 2018 and 2019, indicated a very large variation of grain production depending on the sowing density provided and on the applied mineral fertilizers, this being between 4074 kg/ha and 10234 kg/ha. The best results were obtained in the variants sown with 30 g.g./sqm and fertilized with N150P80 with and without the application of the biostimulator Aminsol. From the point of view of economic efficiency, the variant sown with 30 g.g./sqm and fertilized with N₁₅₀P₈₀ was the most profitable.

Key words: grain quality, economic efficiency, mineral fertilization, production, sorghum