THE EVALUATION OF THE PRODUCTION OF "KUIALNIK" AUTUMN COMMON WHEAT VARIETY IN POLYFACTORIAL EXPERIENCES

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Abstract

During the experiments on the productive potential of the variety „Kuialnik" under the action of three technological factors with different graduations it has been proved its membership in the group of plastic varieties. The obtained yield and grain quality indicated to the priority of the forerunner peas due to the nitrogen fixing bacteria which is favorable for the plant growth. The forerunner spring vetch is less productive, since a part of the biological nitrogen is used by the oat plants. An increased yield was obtained from the variants having the density of 6 million germinating seeds per hectare, which were sowed in the recommended period after the forerunner peas and constituted - 4441.6 kg/ha. The yield of Kuialnik variety was higher after the forerunner peas - 4151.1 kg/ha compared with the forerunner spring vetch - 3706.4 kg/ha. The yield difference after the studied forerunners is 444.7 kg/ha on behalf of the peas. The yield growth is provided statistically by a significantly positive record $DL_{05}B$=68 kg/ha. After the forerunner peas, the highest yield was obtained in the second sowing (22.X) - 5022,4 kg/ha, which had significantly exceeded the recommended period (27.IX) and in the late sowing period (12.XI) with 585.3 and 1442.7 kg/ha. After the forerunner spring vetch, the recommended sowing period ensured the maximum yield - 4215.3 kg/ha, significantly exceeding the allowed period (456.0 kg/ha) and the late period (1071.3 kg/ha). The yield of Kuialnik variety in different variants of the sowing density was at the same level as in the control variant (5.0 million - 3928.3 kg/ha). Creating a hierarchy of the technological factors that induce fluctuations in the protein content of wheat grains it results that its values classifies the variety Kuialnik in the quality group B, meaning that it is good for baking. The protein content was higher in the grains of wheat grown after the forerunner spring vetch - 13.75%, or by 0.09% more than in the control group after the forerunner peas, the difference being statistically recorded as negative - DL being of 0,88 %.

Key words: *Triticum aestivum*, density, forerunner, proteins, yield