

THE INFLUENCE OF APPLYING DIFFERENT FERTILIZER RATES ON THE FLOUR OF WHEAT CULTIVATED ON THE CAMBIC CHERNOZEM FROM A.R.D.S. CARACAL

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Abstract

In order to establish the influence of different nitrogen, phosphorus and potassium fertilizers rates as well as of their interaction on wheat flour there was set up an experiment in 2011 where there were applied several fertilizer rates with the wheat crop on the cambic baticalcric chernozem from A.R.D.S. Caracal, District Olt. There were determined the following indicators: wet gluten, falling number, Zeleny sedimentation test, gluten formation index, glutemic index, pharinograph test and alveograph test. This way, the wet gluten content has determined to the obtaining of values that show a flour of good quality when moderate rates of nitrogen (N100 – N150) along with moderate rates of phosphorus, reaching 24.8-25.3% wet gluten. The same way, the other quality indicators of the wheat flour as Zeleny sedimentation test has recorded values of 61-63 ml, the falling number of 234-244 second and the pharinograph and alveograph tests have conducted to obtaining of flour of good quality when rates of N100-N150P80 were applied. So, after determining these indicators there was established that the best quality of flour was given by moderate rates of nitrogen, N100 – N150 on moderate rates of phosphorus, P80. The applying of nitrogen, phosphorus and potassium fertilizers alone does not ensure a proper quality of the flour.

Key words: wheat flour, quality indicators, fertilizers, chernozem
