

## Contribution to characterization of some cereals from Dobrogea region

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**Abstract** The purpose of this study is to present original results about nitrogen, phosphorus and potassium distribution in straw cereal grains from Dobrogea region depending on the soils characteristics. In order to achieve this aim, studies on the nutrients content in soils from small farms located in Mereni, Independenta and Lumina (Constanta County) together with nitrogen, phosphorus and potassium content in grains of different cereals cultivated on the above mentioned soils have been done. Samples of soils, barley, wheat and rye grains have been collected; for the preparation of cereals and soils samples and their chemical characterization standard protocols were followed. Nitrogen was determined by acidimetric titration, phosphorus using molecular absorption spectrometry and potassium by atomic emission spectrometry.

Nutrients concentrations in cereal grains and soils have been found in accordance with the means reported values of occurrence. The nutrients transfer coefficients from soil to cereal grains generally increase in the order: nitrogen (8-15), potassium (15-66), phosphorus (76-250) in all studied sampling sites with some exceptions depending probably on the specific equilibrium involved in the nutrients absorption by roots.

*Keywords:* soils, barley, wheat, rye, nitrogen, phosphorus, potassium, molecular spectrometry

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