

Possibilities of the Agricultural Use of Decoctions from the Alcohol-Distilling Industry – Beata Rutkowska,
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Summary

The fertilizing value of rye, potato and molasses decoctions was evaluated in a microplot experiment, in which maize and turnip were used as testing plants. Based on the analysis of chemical composition of decoctions it was found that these decoctions used as fertilizing material were unbalanced with respect to their N, P and K contents. The potato decoction is characterized by the most favourable N:K ratio from the point of view of the nutritional requirements of plants. The rye decoction contains too little potassium and that from molasses – too much of this element in relation to N content. The use of the molasses decoction in fertilizing is possible after its correction with phosphorus. The rye decoction requires correction with potassium for appropriate use in fertilization. In addition, application of the decoctions studied caused an increase in the organic C and total N contents in soil and improvements in the sorption properties of soil. The molasses decoction caused a decrease in the available forms of P in soil. The decoctions applied in experiments considerably increased yields and nutrient content in plants studied, both in the direct and after- effect.