

BIOACTIVE POTENTIAL OF SOME CONDIMENTARY PLANTS: WILD GARLIC (*ALLIUM URSINUM*), SORREL (*RUMEX ACETOSA L.*), NETTLE (*URTICA DIOICA*)

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Condimentary plants such as wild garlic (*Allium Ursinum*), sorrel (*Rumex Acetosa L.*) and nettle (*Urtica Dioica*) are rich in biologically active compounds and well known for their nutritional and nutraceutical properties. Bioactive compounds such as vitamins, chlorophylls and phenolic compounds are natural antioxidants found in plants [1,2]. Wild garlic, nettle and sorrel are widely spread in Moldova which fact motivates their use as plant-based condiments in food industry.

The aim of this study was to investigate the bioactive profile of some local condimentary plants. For the analysis of bioactive profile plant extracts were obtained. Using analytical methods were determined the total content of chlorophylls and polyphenols. The antioxidant activity was determined by DPPH assay method.

The results showed that the results showed that the wild garlic extract has a content of chlorophylls - 2,28±0,03 mg/L and the amount of total polyphenols is 32,49±0,05 mg/L. For the sorrel extract the content of chlorophylls – 0,46±0,01 mg/L and the amount of total polyphenols is 25,16±0,05 mg/L. For the nettle extract the content of chlorophylls – 5,33±0,02 mg/L and the amount of total polyphenols is 24,04±0,03 mg/L. The bioactive profile of the samples was confirmed by the antioxidant activity determined in plant extracts. The antioxidant activity was 22,13±0,03% for nettle extract; 6,45±0,03% for sorrel extract and 10,41±0,05% for wild garlic extract.

Evaluating the bioactive profile of local condimentary plant extracts we can conclude that there is a high possibility to motivate the continuous use of this compounds in the food industry and production of functional food products to offer to consumers high-quality food products.

Keywords: antioxidants, herbs, chlorophylls, polyphenols.

References:

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