

## EVALUATION OF THE CONTENT OF ESSENTIAL ELEMENTS AND HEAVY METALS IN BIOACTIVE SNACKS

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The aim of this study was to evaluate the content of essential elements (Ca, Mg, Na, K, Fe, Zn, Mn and Cu) and content of heavy metals (Pb, Cd) in the bioactive snacks - Novel Food Products (NFP). Analyses were conducted the following products: snacks control (C), snacks with inulin (I), snacks with cumin (K), snacks with cumin and inulin (KI), snacks with addition broad bean meal and cumin (BBK), snacks with addition broad bean meal, cumin and inulin (BBKI), snacks with addition broad bean post-fermentation meal and cumin (BPK), snacks with addition broad bean post-fermentation meal, cumin and inulin (BPKI). The content of Ca, Mg, Fe, Zn, Mn, Cu, Pb and Cd were determined after dry ashing of samples by the AAS method, and the content of Na and K by AES method. The significant differences in the level of minerals in examined products were observed. The highest Ca and Mg content was observed in the snacks (BPK), the highest Zn and Mn content was found in the snacks (BBKI), and highest Na and Fe level was noted in snacks (KI). However, snacks (I) included the lowest content of Mg, K, Fe, Zn, Mn and Cu, while control snacks had the lowest level of Ca and Na. The content of Cd and Pb were relatively low and did not exceed the permitted levels specified by the EU Commission Regulation.

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