CONTENT PARAMETERS OF WET-FRACTIONATED FIBRE OBTAINED FROM LEAVES AND STEMS OF DIFFERENT BATATA SPECIES (*IPOMOEA BATATAS*)

Gábor Csatári [1], Bence Eged [2], Szilvia Kovács [3]

[1] University of Debrecen MÉK, Department of Applied Plant Biology, PhD student
[2] University of Debrecen MÉK, Department of Applied Plant Biology, MSc student
[3] University of Debrecen MÉK, Department of Applied Plant Biology, assistant professor

The subject of the present research is the batata, which is mainly grown for its tubers. The leaf has also excellent nutritional parameters, which justify its inclusion in human nutrition. The consumption of its leaves is popular in Asia and Africa, but is still in the process of being discovered in our country. The fibre in leaves can be an excellent ingredient for functional foods.
Two batata varieties (purple and white flesh batata) that can be grown under indoor growing conditions were selected, each variety was set up in 3 replicates under different growing conditions. The leaf blade and stems with petiole were harvested separately and the fibre was produced by wet fractionation. The amount of photosynthetic pigments, protein, phenol and flavonoids from lyophilized fibre samples was determined by spectrophotometric method.
For leaves, chlorophyll-a was 13.52-5.58 ug/mg, chlorophyll-b 7.07-2.77 ug/mg, carotenoids 6.15 - 2.55 ug/mg, xanthophylls 0.61-0.47 ug/mg. For the stem, chlorophyll-a was 1.32-0.31 ug/mg, chlorophyll-b 0.71-0.16 ug/mg, carotenoids 0.69-0.17 ug/mg, xanthophylls 0.22-0.021 ug/mg. The values of phenol content in leaves were 226.51-120.17 mg/g and in stems 15.83-30.32 mg/g. Within the phenolic content, flavonoids in the leaf ranged from 10.13 to 6.74 ug/g, while in the stem from 3.59 to 1.62 ug/g. In terms of protein content, we measured 525.19-387.73 mg/g in leaves and 34.17-12.18 mg/g in stem. The results basically show that the values measured in the leaf far exceed those measured in the stem. Furthermore, we measured more favourable values in the white flesh batata we used.

„SUPPORTED BY THE ÚNKP-ÚNKP-21-3-I-DE-339 NEW NATIONAL EXCELLENCE PROGRAM OF THE MINISTRY FOR INNOVATION AND TECHNOLOGY FROM THE SOURCE OF THE NATIONAL RESEARCH, DEVELOPMENT AND INNOVATION FUND.”