

Element Content in Some Wild Agaricus and Agrocybe Taxa from Marmara Region (Turkey)

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Abstract : Twenty-two element contents were analyzed in five wild Agaricus and Agrocybe taxa [Agaricus bresadolanus Bohus, Agaricus essettei Bon, Agaricus xanthoderma Genev. Agrocybe paludosa (J.E. Lange) Kühner & Romagn. Ex Bon and Agrocybe praecox (Pers.) Fayod] from Marmara region of Turkey by ICP-AES equipment. The element uptake levels were observed at different amounts in each Agaricus and Agrocybe species. The highest Pb and P concentrations were determined as 16.74 and 1.501 mg.kg-1 in A. essettei and A.bresadolanus respectively. Ag, P, and Hg concentrations were determined as 30685, 1,501, and 5978 mg.kg-1 in A. bresadolanus respectively. A. essettei has highest Ni, Cu, and Mn concentrations as 37.1, 43.63 and 1476 mg.kg-1 respectively, whereas A. praecox has highest Mo, Ni and P as 0.54, 10.20 and 27.9 mg.kg-1 respectively. A. paludosa has highest Zn, Cd, and Ba concentration as 336.8, 2.26 and 571.5 mg.kg-1 respectively. The highest K concentration was found in A. xanthoderma with 5.31 mg.kg-1. According to WHO and FAO criteria, identified metals in Agaricus and Agrocybe genera are not harmful to people if they would be consumed.

Keywords : agaricus, element, macrofungi, Turkey

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