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COMPARISON OF COPPER LEVEL IN SOME WILD EDIBLE MUSHROOMS COLLECTED FROM TUNCELI PROVINCE, TURKEY

Ince M, Alp H, Kaplan Ince O and Onal A
Munzur University, Turkey

The consumptions of wild-growing edible mushrooms as a component of healthy human diet and they contain basic nutrients, high proteins, vitamins as well as minerals required for human growth and development. Because levels of essential elements especially copper are very important but are able to accumulate various toxic metals, this could represent a serious risk to consumer health. For instance, many people collect wild edible mushrooms in Turkey substantially contributing to food intake. They have also been reported to have medicinal properties. Some mushrooms have immunomodulatory, anti-carcinogenic and anti-mutagenic properties and is still in use as a healthy food for the prevention of cancer. The heavy metals accumulation in macrofungi has been found to be affected by various factors including environmental. Environmental factors contain pH, amount of organic matter, soil metal concentrations, and fungal factors including mushroom species, development stages and biochemical composition. Copper is present in all tissues and is required for cellular respiration along with it is essential element in mammalian nutrition. Also Cu plays a vital role in central nervous system development and is a cofactor for countless enzymes. Serious damage can occur in case of excessive Cu intake to body, when it is not taken in sufficient quantity may result in incomplete development. In this study four wild mushrooms species as *Agaricus campestris*, *Langermannia gigantea*, *Pleurotus eryngii* var. *eryngii*, *Pleurotus eryngii* var. *ferulae* that collected from three different region of Tunceli were analyzed. Copper analysis was done using ETAAS and results were evaluated statistically by SPSS. When evaluated in terms of species Cu concentrations were similar statistically in *Agaricus campestris* and *Langermannia gigantea*, *Pleurotus eryngii* var. *eryngii* and *Pleurotus eryngii* var. *ferulae*. When evaluated from the point of view of the region, there is no difference in terms of copper concentrations in the regions.

Recent Publications

1. Ince M and Kaplan Ince O (2017) Box-Behnken

design approach for optimizing removal of copper from wastewater using a novel and green adsorbent. *Atomic Spectroscopy* 38(6):200-207.

2. Ince M, Kaplan Ince O, Asam E and Önal A (2017) Using food wastes biomass as effective adsorbents in water and wastewater treatment for Cu(II) removal. *Atomic Spectroscopy* 38(5):142-148.
3. Ince M, Kaplan Ince O and Yaman M (2017) Optimization of an analytical method for determination of pyrene in smoked meat products. *Food Analytical Methods* 10(6):2060-2067.
4. Kaplan Ince O, Ince M, Yonten V and Goksu A (2017) A food waste utilization study for removing lead (II) from drinks. *Food Chemistry* 214:637-643.
5. Yonten V, Ince M, Tanyol M and Yildirim N (2016) Adsorption of bisphenol a from aqueous solutions by *pleurotus eryngii* immobilized on amberlite XAD-4 using as a new adsorbent. *Desalination and Water Treatment* 57:22362-22369.

Biography

Ince M has received his PhD degree in Analytical Chemistry at Firat University, Turkey in 2008. He worked as an Assistant Professor and Research Analytical Chemist in Science Education Department at Mus Alparslan University, Turkey from 2009 to 2012. He has been working as an Associate Professor at Munzur University since 2012. From 2013-2016, he served as a Head of Department of Chemical Engineering at the Munzur University, Turkey. He became Editorial Board Member of the *International Journal of Food and Nutrition Sciences*, *International Journal of Toxicology and Environmental Health*, *Journal of Environment and Waste Management*, *International Journal of Pure and Applied Sciences*, *International Research Journal of Chemistry*, *Chemical Sciences Journal* and *Science Journal of Analytical Chemistry*. He is an author and co-author of more than 22 papers that published in journals with good impact factors.

muharremince@munzur.edu.tr