

Minerals and Nutritional Composition of Some *Phellinus* Mushrooms

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Abstract: *Phellinus* Quél. is one of the largest basidiomycetous genus with in family Hymenochaetaceae. It is characterized by annual to perennial basidiocarps. The genus is characterized by dimitic hyphal system, four spored basidia and broadly ellipsoid to subglobose basidiospores. There are various species of *Phellinus* that have been recognised as therapeutic agents in traditional Chinese medicine and have been used for the treatment of stomachaches, inflammation, arthritis, hepatoprotection, enhancing detoxification, combating allergy and diabetes. It is a potent mushroom being explored scientifically for its use in food and drug formulations. The basidiocarps of three different *Phellinus* species viz. *Phellinus allardii*, *Phellinus gilvus* and *Phellinus fastuosus* have been studied for minerals and various compositional properties. Variability was observed in terms of physical characteristics (e.g. tapped density, bulk density, Hausner ratio, Carrs Index, oil absorption capacity, water absorption capacity, dispersibility, loss on drying, foreign matter) and proximate analysis (e.g. total ash value, acid insoluble ash, water soluble ash, alcohol soluble extractive, water soluble extractive, emulsion capacity and emulsion stability, total carbohydrates, total proteins and total phenols) and mineral composition. The mineral compositions were determined by wavelength dispersive X-ray fluorescence (WDXRF) technique. The presence of various major and minor mineral nutrients have been measured. Pb and Hg were not detected as toxic elements in the present analysis technique. The present study revealed that in terms of both quality and quantity, the basidiocarps of these three *Phellinus* species are good source of nutritional and minerals supplement to meet the dietary contents as well as to help the formulation of herbal medicinal preparations.

Keywords: *Phellinus*, Minerals, Compositional Properties, WDXRF.