

**DETERMINATION OF HEAVY METALS IN SEVERAL
SPECIES OF COMMERCIAL MUSHROOM**

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ABSTRACT

DETERMINATION OF HEAVY METALS IN SEVERAL SPECIES OF COMMERCIAL MUSHROOM

Four heavy metals (Pb, Cd, Cu and Zn) in four different commercial mushroom species (*Pleurotus ostreatus*, *Lentinus edodes*, *Hypsizygus tessellatus* and *Auricularia polytricha*) purchased from the local market were determined by Atomic Absorption Spectroscopy after microwave digestion. The ranges of element concentrations for lead, copper and zinc were 0.003-0.009, 0.00016-0.00019 and 0.00075-0.0012 mg/kg respectively but the cadmium content level was below the detection limit. In general, lead content was higher than other metals in all mushroom species. All of the metal content level were below than permissible limit that recommended by WHO. The Hazard Index (HI) value was less than 1 for all heavy metals in *Lentinus edodes*, *Hypsizygus tessellatus* and *Auricularia polytricha* while the HI value in *Pleurotus ostreatus* was exceed the acceptable value, 1. The HI value for *Pleurotus ostreatus*, *Lentinus edodes*, *Hypsizygus tessellatus* and *Auricularia polytricha* were 1.32, 0.012, 0.010 and 0.046 respectively. Therefore, there is no non-carcinogenic risk from ingestion of these four metals individually and collectively through the three types of mushroom consumption from the market except for *Pleurotus ostreatus*.

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