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**Analysis of the heavy metal content of lotus (*Nelumbo nucifera*) and kohila (*Lasia spinosa*) and their effect in cooking**

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Intake of heavy metal contaminated vegetables poses a major risk to human health. Thus, the concentration of Cadmium(Cd), Copper(Cu), Lead(Pb) and Zinc(Zn) of two different aquatic vegetables; KOHILA(*Lasia spinosa*) and LOTUS(*Nelumbo nucifera*) collected from different areas which belong to dry zone, intermediate zone and wet zone of Sri Lanka was analyzed using flame atomic absorption spectrometry (Hitachi ZA 3000 Polarized Zeeman). Further, the leached-out concentration of those heavy metals during cooking of the vegetables also studied and compared with the values obtained for raw samples. The average contents of heavy metals detected in kohila ranged from 0.08-1.20, 15.56-58.33, 14.44-410.00-1 for Cd, Cu and Zn respectively. For lotus the average contents of heavy metals ranged from 0.06-0.10, 27.50-63.33, 7.22-46.11<sup>-1</sup> for Cd, Cu and Zn, respectively. The mean concentrations of heavy metals which leached out to the cooked medium during cooking were negligible when compared with the heavy metal concentrations of raw samples of kohila and lotus. Therefore, cooking has no significant effect on reducing the heavy metal contents of above vegetables. In addition, the mean concentrations of metals in kohila and lotus were found in the order of their abundance as Zn>Cu>Cd and Cu>Zn>Cd respectively. Pb was not detected. It was also found that the Cd and Zn levels of kohila exceeded the maximum permissible limits set by World Health Organization for human consumption and mean concentrations of Cd, Cu and Zn of lotus were below the maximum permissible limits. Thus, the study highlights that long-term consumption of kohila may possibly cause various health hazards in human. Also, the consumption of Lotus may not have significant effect on human health.

**Biography**

Madushani D V C D is currently working as a Research Scholar in Institute of Chemistry Ceylon, Sri Lanka.

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