

## Occurrence of Natural and Foliar-Fed Essential Micro-Nutrients [Cu, Fe, Mn, Zn] in Sri Lankan Tea

MSM Safras<sup>1\*</sup> DC Abeysinghe<sup>2</sup> and AKN Zoysa<sup>3</sup>

**ABSTRACT.** The purpose of this study was to understand the natural occurrence of micro nutrients (Zn, Cu, Mn and Fe) in processed black tea in main tea growing regions of Sri Lanka. Made tea samples (BPOF and FBOP) were collected for five months from selected tea estates representing Nuwara Eliya, Westerns, Uda Pusselawa, Uva, Medium-grown and Low-grown regions of Sri Lanka.

The results indicated that the Zinc (Zn) content ranges from 22 to 45 ppm and the highest Zn content was found in the Western teas. Copper (Cu) content in black tea ranges from 15 to 33 ppm. The highest Cu content was found in Western teas whereas, the lowest amount of Cu was found in Low-grown teas. Manganese (Mn) content in black tea ranges from 153 to 539 ppm. The highest amount of Mn was found in Uva teas and the lowest amount was found in Nuwara Eliya teas. The seasonal variation in Mn content was also observed. Iron (Fe) content in black tea ranges from 54 to 173 ppm. The highest amount of Fe was found in Uda Pusselawa teas and the lowest was found in Medium-grown teas. Nuwara Eliya region teas contain significantly higher amount of Fe compared to Medium-grown teas.

This study revealed that Zn, Cu, Mn and Fe content in Black tea is within the standards set by the tea importing countries.

**Key words:** Black Tea, Maximum Residues Limit (MRL), Micro Nutrients.

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\* To whom correspondence should be addressed : abeysinghedc@yahoo.com

<sup>1</sup> Department of Plantation Management, Faculty of Agriculture and Plantation Management, Wayamba University of Sri Lanka

<sup>2</sup> Plant and Nutrition Division, Tea Research Institute, Talawakelle

<sup>3</sup> Plant and Nutrition Division, Tea Research Institute, Talawakelle