

## **B-01 Manganese status of rubber plantations in Sri Lanka in relation to soil type and management practices**

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An assessment of the manganese status of the rubber plantations in Sri Lanka and the factors that influence its variation are discussed. It appears that rubber growing soils in Sri Lanka have adequate supply of manganese for satisfactory performance of rubber trees. The acid extractable Mn which is considered as an indicator of the Mn reserves in the soil showed significant difference between soil types. *Matale* soils recorded the highest concentrations of acid-extracted manganese followed by *Parambe* and *Ratnapura* series soils and *Boralu* soils had the lowest.

The ammonium acetate extractable Mn fractions between soil series were also different ( $p < 0.001$ ), *Parambe* series soils recording the highest value followed by *Boralu* and *Matale* series soils. There were significant differences ( $p < 0.001$ ) between different soil management practices for soil exchangeable Mn, highest value being recorded with straw mulch. Poultry litter application also enhanced the soil and leaf Mn contents significantly. Application of rubber factory effluent to rubber lands and different planting practices on Mn status of rubber was also investigated. Leaf Mn content of different cover species was also studied.