EXTRACTABLE MICRONUTRIENTS IN SOME SANDY SOILS OF SRI LANKA AND THEIR AVAILABILITY TO COCONUT

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Five extractants, 0.1 M HCl, 0.02 M EDTA, 1 M NH_4 OAc(pH 7), 1 M NH_4OAc(pH 4.8). and 0.02 M EDTA plus 0.5 M NH_4OAc(pH 4.65), were used to determine extractable Fe, Mn, Cu and Zn in nine samples of sandy soils belonging to the Great Soil Group, (Regosol). "Easily reducible" Mn was extracted by hydroquinone. Hot water soluble B was also determined.

The soils were generally high in extractable Fe but low in extractable Zn, Cu and B. Left nutrient concentrations were high for Fe, Zn and B but low for Cu. Extractable soil Mn and leaf Mn were high in all soils except the two having pH 7.55 and 7.80.

Correlations of leaf nutrient concentrations and soil extractable nutrients showed that 0.1 M HCl was the best extractant for predicting plant-available Fe in soils and hydroquinone for plant-available Mn. None of the extractants showed significant correlation for Zn, Cu and B. Concentrations of Fe and Mn in the leaves had significant negative correlations with soil pH.

Concentrations of Fe, Mn and Zn in leaf increased and Cu decreased with the maturity of the leaves. Boron concentration did not change significantly with the age of the leaves.