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Use of Different Extractants for Determination of Cu Status of Bajada & terrace Plain Soils of Turkey

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ABSTRACT

Twenty four soil samples (0-20cm) were collected from Bajada and Terrace plain soils. Oats were grown in pots using these soils for 5 weeks. The yield and Cu contents in the plants were, on an average, higher in Bajada plains. There was no significant correlation between dry matter yield and Cu contents of soil. The maximum amount of Cu in the soils was extracted with 0.01M EDTA + 1M$(NH_4)_2CO_3$ followed by 3% HNO_3 and 1NNH_4OAc.

Significant positive correlation (r=0.586*) was found between Cu contents of oat plants and that of 1NNH_4OAc extractable Cu of soils of Bajada plains. No significant correlation was found between Cu contents of the oat and that of soil extracted with other extractants. Yield was not significantly correlated with Cu contents of the oat.

Significant positive correlation was found between 1NNH_4OAc-extractable Cu and soil clay (r=0.721*) and $CaCO_3$ (r=0.682*) and negative correlation (r= −0.698*) between $CaCO_3$ and HNO_3 extractable Cu of soils of Bajada plains. In Terrace plains negative correlation was found between pH (r= −0.776**), O.M. (r= −0.667*), and NH_4OAc-extractable Cu and between pH (r= −0.667**), $CaCO_3$ (r= −0.765**) *and EDTA and* HNO_3 *extractable* Cu respectively. 1NNH_4OAc seems to be more suited extractant from these extractants.