

The Quaternary Morphological Effects on The Chemical Distribution of Micronutrients in Soils and Waters of Safashahr Region in Iran

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Abstract

Safashahr region is located in the north of the Fars County in Iran. The soils of this region are alkaline (average pH=7.98). The Quaternary morphological activities cause the distribution of marl and limestone of Cretaceous-Tertiary period all over the region. At the same time, distribution of micronutrients such as B, Cu, Fe, Mn, and Zn created specific agricultural and economical conditions for this region and chemical analysis shows that the concentration of these micronutrients in related soil pastes are 2.54, 1.18, 7.01, 8.76, 1.87 ppm respectively. The pH measurements of the soil paste determine what kinds of alkaline tolerant plants can grow best with high productivity, while shortage and conservation of water are considered in this semi-dry region. Measurements at the outlet of Safashahr basin indicate that the soil erosion may be around 35459 ton per year. Scientific and practical water control, soil management and educations are needed for this region.

Keywords: Quaternary; micronutrient; Safashahr; Soil alkalinity; Soil analysis