Soil properties influenced by soil formation processes and land use affect micro
nutrition availability in soils. This study aims to reveal relationships between 24
measured soil parameters and micro element availability through descriptive statistics, Pearson correlation and principal analysis
techniques, in 70 surface samples (0-20 cm) taken from the 21 soil series of Isparta-
Atabey plain. Positive and high skewness coefficients indicated that organic matter and available concentrations of phosphorus (P), copper (Cu), iron (Fe), and zinc (Zn) increased due to mainly agricultural practices and/or to relatively lesser extent soil forming processes. Principal component (PC) analysis indicated that seven components explained about 80% of total variance and two of these components were responsible for the variation in microelement concentrations. The principal component related to Cu and Zn in soils showed positive loading with available P, Cu, Zn, ammonium acetate extractable Mg; and negative loading with only clay content of soils. The PC 5 explained the variation in Fe and Mn concentrations in relation to negative loading of soil pH. Consequently, it was determined that the DTPA extractable concentrations of Cu and Zn in some sampling sites have reached environmentally risky levels.