

## Evaluation of Some Methods for Establishing Uniformity of Profile Parent Materials

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*Three methods for establishing uniformity of profile parent materials were applied on soils within the different geomorphic units forming wadi El-Tor and wadi El-Arish, located on the Sinai peninsula. The methods include morphological rating of profile horizons by the relative horizon distinction (RHD) method, particle size distribution of the nonclay fraction, and depth wise distribution of index minerals (zircon, rutile, and tourmaline). The applied methods are generally in agreement with each other. The particle size distribution of the nonclay fraction is a highly recommended method because it is easy and gives clear results for deducing homogeneity or heterogeneity throughout. The RHD method is valuable, nevertheless; heterogeneous parent materials may show similar RHD values. The distribution of index minerals of the heavy fraction may show confusing figures where minerals are very low and results are affected by the number of identified mineral grains.*

Keywords uniformity, parent materials, morphology rating, index minerals, nonclay fraction