

## Using Water Erosion Prediction Project Simulation Model for Studying Some Soil Properties in Egypt

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**Abstract :** The objective of this research work is studying the water use prediction, prediction technology for water use by action agencies, and others involved in conservation, planning, and environmental assessment of the Water Erosion Prediction Project (WEPP) simulation model. Models the important physical, processes governing erosion in Egypt (climate, infiltration, runoff, ET, detachment by raindrops, detachment by flowing water, deposition, etc.). Simulation of the non-uniform slope, soils, cropping/management., and Egyptian databases for climate, soils, and crops. The study included important parameters in Egyptian conditions as follows: Water Balance & Percolation, Soil Component (Tillage impacts), Plant Growth & Residue Decomposition, Overland Flow Hydraulics. It could be concluded that we can adapt the WEPP simulation model to determining the previous important parameters under Egyptian conditions.

**Keywords :** WEPP, adaptation, soil properties, tillage impacts, water balance, soil percolation

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