

Research article

Effect of sand and organic amendment on soil propriety of degraded oasis system on South Tunisia

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Abstract

This work was designed to study the effect of traditional farmer's practices by the addition of gypsum sand dune (GS) with farm manure (FM) on the physical and chemical characteristics of oasis soils in Nefzaoua region in south Tunisia. This work was conducted in two oasis that have two different altitudes (Negga oasis and Zaafrane oasis), the results showed that the application of traditional farmers' practices improves soil fertility with the enhance of soil organic matter to attend 0.78% in amended soil. Amelioration of soil physical characteristics by the improve of soil porosity and water conductivity (Ks) to achieve 12.44 ± 0.42 cm/h in treated soil.

Key words: Oasis soil, Sand amendment, Organic amendment, Physico-chemical properties, Tunisia.