

EFFECT OF SALINE IRRIGATION WATER AND TEA RESIDUE ON SOME PROPERTIES OF SANDY LOAM SOIL AND GROWTH OF CORN (*Zea mays* , L).

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ABSTRACT

Experiment was carried out on Albarjsea sandy loam soil south of Iraq from surface layer 0 - 30 cm in plastic container to study four type of irrigation water (Shutt Al-Arab water , Braine water , mixing with Shutt Al-Arab water by volume 1:1 and 1:2) and added tea residue as soil conditioner at two level T1 and T2 by added 1 and 2% maxing with soil by weight respectively. Water movement to up by capillary action and down by saturated hydraulic conductivity was study . Five corn seeds were sown in 2/3/2009.

Result showed that added of tea residue led to significant increase in capillary action and decrease down water movement .Also result showed that there is significant different in soil salinity of irrigated soils in end of experiment the EC value had 2.36 , 2.46, 2.83 and 4.60 dS m⁻¹ for treatment Shutt Al-Arab water , 1:1 , 1:2 and Braine water respectively. Also addition of Tea residue led to improvement of soil properties and reflected positively on dry weight and higher of plant.

Key words: Saline irrigation water, artificial water, Tea residue