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Effects of lemon organic wastes and some organic matter wastes in reclaiming physico-chemical properties of saline and sodic soils

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In order to find appropriate amendments for reclaimation of saline and sodic soils and to consider the effect of organic matter waste against salinity and sodicity hazard, a research was conducted in 2005. The experiment was factorial with a completely randomized design and had 7 treatments and conducted in three replications for a period of four months (three 40-day periods) with leaching at the end of third period. The experimental treatments were 1 and 2% manure, 1 and 2% lemon organic wastes, 1 and 2% fermented manure with sugar beet molasses and a control. At the end of incubation period acidic organic wastes (lemon organic waste) was the most effective amendment for reclaimation of the saline-sodic soil. After leaching soil samples, 2% lemon organic waste decreased pH from 7.96 in control to 7.31 in reclamated soil and decreased SAR and D.C in comparison to control by 70% and 68% respectively. Fermented manure was more effective than manure in reclamation of the saline-sodic soil.

Keywords: Saline and sodic soil, Reclamation, Lemon organic waste, Dispersible clay, SAR

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