

EFFICIENCY OF CHEMICAL AMENDMENTS IN RECLAMATION OF SALINE-SODIC SOIL

Muhammad Ramzan Chaudhry, Bashir Ahmed
and Muhammad Sadiq Rafique*

ABSTRACT

The efficiency of different reclaims on the reclamation of saline-sodic non-gypsiferous soil was studied. The treatments tried were: i. control, ii. gypsum @ 50% GR, iii. gypsum @ 50% GR + 50 tons ha⁻¹ FYM, iv. H₂SO₄ eq. to 1/10 GR of soil, v. H₂SO₄ eq. to 1/10 GR + 50 tons ha⁻¹ FYM. Gypsum was mixed in the upper 15cm soil layer by ploughing whereas H₂SO₄ was applied with irrigation water. Rice-wheat crop rotation was followed from 1984 to 1988 with recommended dose of fertilizers. Reclamation of 0-30 cm depth was almost completed in treated plots on completion of first year of crop rotation. EC_e of the upper 90cm soil was brought within safe limits after the first rice crop but SAR was lowered to safe limits after the third rice crop for all treatments except control. Maximum paddy and wheat grain yield was obtained with the combination of 50% gypsum and 50 tons ha⁻¹ FYM. It was followed by H₂SO₄ eq., to 1/10 gypsum requirement (GR) when combined with 50 tons ha⁻¹ FYM.