

AMELIORATION OF PATCHY (SPARSE) SALINITY/SODICITY IN IRRIGATED PLAINS OF PAKISTAN (A CASE STUDY)

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ABSTRACT

Salinity/Sodic patches (Spots) in normal cultivated fields result in considerable farm losses. A study to diagnose its causative factors and amelioration measures was undertaken. After thorough investigations of the patchy soil in 1993, the requisite amount of gypsum was incorporated and then monitored the effect of gypsum on the physical and chemical characteristics under farmer's own conditions up till 1997. Major contributing factors, to this patchy salinity/sodicity found were microrelief variations, laminated dense layer(s), and severity of climate supported by the quality/depth of the ground water. Seasonal fluctuation of ground water depth, coupled with the laminated dense layer(s) present in the substratum, resulted in conspicuous salt accumulation on soil surface through capillary rise and subsequent evaporation. It was noticed that the gypsum application did the magic (amelioration) during farmer's routine farming operations after initial levelling.