# COMPACTION EFFECT ON THE PHYSICAL PROPERTIES OF SOIL AND CROP (MAIZE FODDER) YIELD

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*The study was conducted for two years (1989-90). Five compaction levels as number of tractor passes, viz. 0, 2, 4, 6 and 8 were tried.A basal dose of NPK was applied @ 120-90-60 kg ha$^{-1}$. During both the years, the consecutive increase in compaction significantly increased bulk density but decreased hydraulic conductivity and porosity of soil. The compaction effect was noticed to be reversed at later stage up to 4 tractor passes upon irrigation but it persisted even after harvesting of crop where 6 and 8 number of tractor passes were tried. The yield of maize fodder decreased with increasing tractor passes in both the years.*

## INTRODUCTION

The compaction of agricultural soils is becoming a serious problem with increasing the use of agricultural machinery. The increased soil bulk density caused by compaction can result to impeded soil drainage, poor successful growing of crops and crop yields on soil of the Krasnozem series. Khan and Afzal (1990) concluded that hydraulic conductivity of soils was adversely affeted by their high bulk densities.

Keeping the above facts in view, this study was