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YIELD AND QUALITY OF MAIZE FODDER AS INFLUENCED BY NITROGEN FERTILIZERS IN SALINE SOILS

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ABSTRACT

The efficiency of two nitrogen fertilizers and their mixture in saline conditions was compared by recording the fresh and dry yields and analysing it for various chemical constituents. For this purpose a non-saline soil was taken; urea, ammonium nitrate and a mixture of urea + ammonium nitrate (1:1) was applied @ 80 and 160 kg N ha^{-1}. All fertilizers and salts (to make the soil saline) were mixed well in the soil before sowing of maize fodder; cv Akbar. Significant reduction in fresh fodder yield was observed due to increasing level of soil salinity. Nitrogen application increased yield and nitrogen content and decreased potassium, sodium and chloride contents of the dry matter. Salinity had a positive relationship with nitrogen, sodium and chloride but a negative relationship with potassium concentration in plants.

Nevertheless, application of nitrogen in the form of ammonium nitrate or its mixture as ammonium nitrate + urea in 1:1 ratio was found beneficial under saline environment.