

Influence of Soil Salinity on Growth, Yield Attributes and Yield of Sorghum

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ABSTRACT

A pot culture experiment was conducted to study the performance of sorghum cultivars in saline soils during *rabi* 2015-2016 at Department of Soil Science and Agricultural Chemistry, Agricultural College, Bapatla. Soils of different salinity (1.5, 5, 8 and 12 dS m⁻¹ of ECe) collected from Uppugunduru region were tested using three cultivars (Hytech, Laxmi and Mahalaxmi) in completely randomized design with factorial concept replicating thrice. The salinity levels, cultivars and their interaction significantly influenced the percent germination, plant height, number of days to flowering and maturity, drymatter at flowering, yield attributes and yield (grain and stover). Considerable reduction in germination per cent, plant height, yield attributes and yield was observed at the maximum EC tested (12 dS m⁻¹). The flowering and maturity were delayed at maximum salinity in all the cultivars compared to the lowest salinity of 1.5 dS m⁻¹. The maximum grain (21.93 g pot⁻¹) and stover (48.23 g pot⁻¹) yield was observed in treatment combination 1.5 dS m⁻¹ x Hytech.

Key words: Drymatter producton, Percent germination, Plant height.