

Effect of mulching on maize growth and yield under saline irrigation conditions

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ABSTRACT

A field experiment was carried out on clay loam soils during *rabi*, 2024-2025 at Agricultural College Farm, Bapatla to assess the Effect of mulching on maize growth and yield under saline irrigation conditions. The experiment was laid out in a split plot design with four irrigation salinity levels (0.4, 2, 4, and 6 dS m⁻¹) as main plots and three mulching treatments (no mulch, straw mulch, and plastic mulch) as subplots. The results revealed that irrigation with best available water (0.4 dS m⁻¹) recorded significantly kernel yield (8200 kg ha⁻¹) and stover yield (14382 kg ha⁻¹), which was on par with 2 and 4 dS m⁻¹ treatments. Among mulching treatments, plastic mulch recorded the maximum kernel yield (7780 kg ha⁻¹) and stover yield (13747 kg ha⁻¹), which was statistically at par with straw mulch and significantly superior to no mulch.

Keywords: *Kernel yield, Maize, Mulch, Plant height, Saline irrigation and Stover yield*