

# **Influence of Water Management Practices on Yield and Moisture Use Efficiency of Different Millet Crops under Rice Fallows**

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## **ABSTRACT**

A field experiment was conducted on clay loam soils of Agricultural College Farm, Bapatla during *rabi*, 2017-18 to study the effect of deficit water management practices on growth and yield of rice fallow millet crops. Results of the experiment revealed that growth parameters, yield attributes and yield were influenced by scheduling of irrigation at different stages of crop growth in maize, sorghum and bajra. Higher plant height in maize (260.5 cm), sorghum (203.6 cm) and bajra (150.4 cm) were recorded under irrigation scheduled at vegetative, flowering and grain filling stages compared to V<sub>2</sub>, V<sub>3</sub> and V<sub>4</sub> treatment. In drymatter accumulation, irrigation scheduled at vegetative, flowering and grain filling stages (V<sub>1</sub>) recorded higher drymatter accumulation in maize (13498 kg ha<sup>-1</sup>), sorghum (16170 kg ha<sup>-1</sup>) and bajra (12834 kg ha<sup>-1</sup>), followed by irrigations given at flowering and grain filling stages (V<sub>3</sub>). Higher equivalent yield in maize (6320 kg ha<sup>-1</sup>), sorghum (6992 kg ha<sup>-1</sup>) and bajra (2768 kg ha<sup>-1</sup>) were recorded under irrigation scheduled at vegetative, flowering and grain filling stages compared to V<sub>2</sub>, V<sub>3</sub> and V<sub>4</sub> treatments. However, higher moisture use efficiency was registered with Irrigation given at flowering stage only (V<sub>4</sub>) in all the three crops compared to other treatments.

**Key words:** *Scheduling of irrigation, millet crops, water management practices.*