

Response of cotton (*Gossypium hirsutum* L.) to potassium fertilization and potassium releasing bacteria (KRB)

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ABSTRACT

A field experiment was conducted at Regional Agricultural Research Station, Lam during *khariif*, 2023, to study the effect of potassium fertilizer doses and potassium releasing bacteria (KRB) on the growth and yield of cotton (*Gossypium hirsutum* L.). The experiment was laidout in a randomized block design with ten treatments replicated thrice. The treatments comprised of T₁: control; T₂: RDF; T₃: RDNP; T₄: KRB; T₅: RDF + KRB; T₆: RDF +KNO₃ 1% (FA) at 60 DAS; T₇: 75% RDK + KRB; T₈: 75% RDK + KRB + KNO₃ @ 1% (FA) at 60 DAS; T₉: 50% RDK + KRB; and T₁₀: 50% RDK + KRB + KNO₃ @ 1% (FA) at 60 DAS. The application disclosed that the application of RDF + KRB+ KNO₃ 1% (FA) at 60 DAS had a significant effect on plant height, drymatter accumulation, monopodia, sympodia, number of bolls plant⁻¹, seed cotton yield and stalk yields over the rest of the treatments and was found to be on a par with RDF + KRB.

Keywords: *Cotton, KRB and Potassium*