

Growth and yield of newly released blackgram varieties at different nutrient levels and liquid biofertilizers

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ABSTRACT

A field experiment was carried out on clay loam soils during *rabi*, 2024-2025 at Regional Agricultural Research Station, Lam, Guntur to study the response of newly released blackgram varieties to liquid biofertilizers at graded nutrient levels. The experiment was laid out in randomised block design with factorial concept with 3 varieties *viz.*, LBG-884, LBG904, LBG-752 (check variety) as factor - I and nutrient levels – Absolute control, *Rhizobium* seed treatment + soil application of PSB & KRB alone, 100 % RDF, 75% RDF + *Rhizobium* seed treatment + PSB+ KRB and 50% RDF + *Rhizobium* seed treatment + PSB+ KRB as factor - II, in three replications. The results of the investigation revealed that among the varieties, LBG-904 (M_2) recorded the highest drymatter accumulation at harvest (5129 kg ha^{-1}), number of pods plant⁻¹(17.1), number of seeds pod⁻¹ (6.7), seed yield (1989 kg ha^{-1}) and haulm yield (2988 kg ha^{-1}) over LBG -884 (M_1) and LBG752 (M_3). Application of 100% RDF recorded taller plants, (40.0 cm), drymatter accumulation at maturity (5529 kg ha^{-1}), number of pods plant⁻¹(19.3), number of seeds pod⁻¹(7.8), seed yield (2107 kg ha^{-1}) and haulm yield (3029 kg ha^{-1}) and found at par with (S_4) - 75% RDF + *Rhizobium* seed treatment + PSB+ KRB over (S_5) - 50% RDF + *Rhizobium* seed treatment + PSB+ KRB, (S_2) - *Rhizobium* seed treatment + soil application of PSB, KRB alone and (S_1) - Absolute control.

Keywords: *Blackgram, KRB, Liquid biofertilizers, Nutrient levels, PSB, Rhizobium and Varieties*