

Integrated Nutrient Management in Clusterbean (*Cyamopsis Tetragonoloba* L. Taubert)

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Abstract A field experiment was conducted on loamy sand soil of Agronomy Instructional Farm, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar (Gujarat) during *kharif* season of 2008. The soil at the experimental site was loamy sand with low available nitrogen, medium in phosphorus and high in potassium. The experiment was laid out in RBD with four replications consisting sixteen treatments (Table 1). Among the different treatments, application of 100 % RDN through Urea + *Rhizobium* + PSB inoculation recorded significantly higher Number of nodules/plant at 50 DAS (23.5), Green weight of nodule/plant at 50 DAS (96.0 mg), Number of pods/plant at harvest (31.1), Seed yield/plant (10.12 g), 100-seed weight (5.87 g), Dry matter /plant at harvest (31.74 g), Seed Yield (910 kg/ha) and Stover Yield (2737 kg/ha over rest of the treatments. The highest net return (Rs 9631/ha) and BCR (2.13) were recorded with same application. All parameters were found at par with application of 75 % RDN through Urea + 25 % RDN through FYM + *Rhizobium* + PSB.

Table 1 treatments details	
T ₁	100 % RDN through Urea
T ₂	100 % RDN through Urea + <i>Rhizobium</i>
T ₃	100 % RDN through Urea + PSB
T ₄	100 % RDN through Urea + <i>Rhizobium</i> + PSB
T ₅	75 % RDN through Urea + 25 % RDN through FYM
T ₆	75 % RDN through Urea + 25 % RDN through FYM + <i>Rhizobium</i>
T ₇	75 % RDN through Urea + 25 % RDN through FYM + PSB
T ₈	75 % RDN through Urea + 25 % RDN through FYM + <i>Rhizobium</i> + PSB
T ₉	50 % RDN through Urea + 50 % RDN through FYM
T ₁₀	50 % RDN through Urea + 50 % RDN through FYM + <i>Rhizobium</i>
T ₁₁	50 % RDN through Urea + 50 % RDN through FYM + PSB
T ₁₂	50 % RDN through Urea + 50 % RDN through FYM + <i>Rhizobium</i> + PSB
T ₁₃	100 % RDN through FYM
T ₁₄	100 % RDN through FYM + <i>Rhizobium</i>
T ₁₅	100 % RDN through FYM + PSB
T ₁₆	100 % RDN through FYM + <i>Rhizobium</i> + PSB