

ISOLATION, BIOCHEMICAL CHARACTERIZATION AND PREPARATION OF BIOFERTILIZER USING *RHIZOBIUM* STRAINS (*VIGNA MUNGO*) FOR FARMERS USE

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Abstract: A pot experiment was conducted at Sardar VallabhBhai Patel University of Agriculture & Technology, Meerut (U.P.) to evaluate the effect of *Rhizobium* as a biofertilizers on different plant parameters related to yield performance of Black gram (*Vigna mungo*) cv.urd shekhar-2 during the period from March to June 2013. The trial composed of four treatments such as T₁=control, T₂=DAP, T₃=IARI (Urd 10B) and T₄=Native strain. Irrespective of treatment differences the black gram plant as a pulse crop showed a lag phase for slow dry matter production in early growth stage that decrease upto harvest. This greater dry matter production eventually partitioned to root length, seed number, seed weight, dry pod weight, number of pods, number of nodules and microbial count. The results revealed that biofertilization perform significant improvement in plant productivity and quality. The maximum germination and increase in plant root length, seed number, seed weight, dry weight, number of pods and microbial count was increased progressively in treatments treated with *Rhizobium*.

Keywords: Isolation, biofertilizer, *Rhizobium*

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