



## RESEARCH PAPER

# To study the effect of different fertilizer and biofertilizer levels on growth and yield of summer greengram

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**Abstract :** The field experiment was conducted in Factorial Randomized Block Design during summer 2010 at Research Farm, College of Agriculture, Latur (Maharashtra). The treatments were comprised of nine combinations with three fertilizer levels viz., 50 per cent RDF (F<sub>1</sub>), 75 per cent RDF (F<sub>2</sub>), 100 per cent RDF (F<sub>3</sub>), along with seed inoculation of *Rhizobium* (B<sub>1</sub>), seed inoculation of PSB (B<sub>2</sub>) and dual seed inoculation of *Rhizobium* + PSB (B<sub>3</sub>). Each experimental unit was replicated thrice with the plot size of 5.4 m × 4.2 m and 4.2 m × 3.6 m as the gross and net plot, respectively. The variety GOLD-9 SHANESHWAR was sown by dibbling method on 28<sup>th</sup> January 2010 at spacing of 30 cm × 10 cm. The recommended cultural practices and plant protection measures were undertaken. The recommended dose of fertilizer (25:50:00 kg NPK ha<sup>-1</sup>) was applied at the time of sowing through ammonium sulphate and SSP. The results revealed that application of 100 per cent RDF (F<sub>3</sub>) and dual seed inoculation of *Rhizobium* + PSB (B<sub>3</sub>) recorded significantly higher growth, yield and quality contributing characters followed by application of 75 per cent RDF (F<sub>2</sub>), 50 per cent RDF (F<sub>1</sub>) in combination with seed inoculation of PSB (B<sub>2</sub>) and seed inoculation of *Rhizobium* (B<sub>1</sub>). But dual seed inoculation of *Rhizobium* + PSB (B<sub>3</sub>) recorded significantly higher growth contributing characters followed by seed inoculation of *Rhizobium* (B<sub>1</sub>) and seed inoculation of PSB (B<sub>2</sub>) except number of pods per plant.

**Key Words :** Biofertilizer, Fertilizer levels, Growth, Summer greengram, Yield

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