



## RESEARCH PAPER

# Effect of nutrients management on growth and yield of summer green gram (*Vigna radiata* L.)

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**Abstract :** The present investigation aimed to find out the effect of nutrients management on growth and yield of summer green gram (*Vigna radiata* L.) was carried out at Agronomy Research Farm of Mewar University, Gangrar, Chittorgarh, Rajasthan during summer season of 2024. The experiment was laid out in Randomized Block Design. Replicated thrice with 10 treatment combinations, comprising T<sub>1</sub> Control, T<sub>2</sub> 50 % RDF (20:40:00 NPK kg ha<sup>-1</sup>), T<sub>3</sub> 150 % RDF + Vermicompost 2.5 t ha<sup>-1</sup>, T<sub>4</sub> 100% RDF + Vermicompost 2.5 t ha<sup>-1</sup> + Biofertilizer (Seed Treatment), T<sub>5</sub> 75% RDF (15:30:00 NPK kg ha<sup>-1</sup>) T<sub>6</sub> 75% RDF + Vermicompost 2.5 t ha<sup>-1</sup>, T<sub>7</sub> 75% RDF + Vermicompost 2.5 t ha<sup>-1</sup>, T<sub>8</sub> Vermicompost 5 t ha<sup>-1</sup> + Biofertilizer (Seed Treatment), T<sub>9</sub> 50 % RDF of NPK + Vermicompost (5 t/ha) + PSB (2.5 kg/ha), 75% RDF of NPK + + FYM (20 t/ha) +PSB (5 kg/ha). The application of organic and inorganic fertilizer was found most effective improve growth yield and quality parameter like maximum plant height (36.48, 49.25 and 53.02 cm), the maximum number of branches (8.05, 10.59 and 13.12) at 30 DAS, 45 DAS and at harvest highest dry matter accumulation plant<sup>-1</sup> recorded in T<sub>9</sub> (4.36 and 7.89 g) at 25 and 50 DAS. Highest grain yield (0.760 kg), higher seed yield (12.67 qt/ha), higher biological yield (37.12 tq/ha), maximum straw yield was (24.46 tq/ha), maximum harvest index was (34.12 %).

**Key Words :** Summer green gram, Nutrients management

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