

## Effect of biofertilizers and variable phosphorus levels on growth, quality, yield attributes, and uptake of greengram (*Vigna radiata* L.)

Satyendra Tiwari, Suresh Kumar and T.P.S Katiyar  
Narendra Deva University of Agriculture & Technology, India

The study was aimed to evaluate the effect of variable levels of phosphorus in combination with biofertilizer viz. control PSB and VAM on quality and different yield contributing traits. The twelve treatments were laid out in randomized block design with four replications. The soil having pH (1:2.5) 8.25, EC 0.36 dSm<sup>-1</sup>, low organic (0.29%), nitrogen (145.42), medium in phosphorus (17.20) and potassium (214.20) kg ha<sup>-1</sup>. The results of field experiment revealed that plant height yield attributes like pods plant<sup>-1</sup>, seed pod<sup>-1</sup>, test weight and quality like protein content in seeds, nitrogen and phosphorus uptake in seed and stover were increased significantly with 60kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> while number of branches plant<sup>-1</sup> was at par with 60 kg ha<sup>-1</sup>. The application of VAM was more effective in increasing in all the growth, yield attributes, protein content and uptake of nitrogen and phosphorus in seed and stover which was statistically at par with PSB and significantly superior with Uninoculated biofertilizers. The number of nodule plant<sup>-1</sup>, fresh and dry weight of nodule also increased significantly up to 60kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>. All the parameters were most effective with 60kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup> along with VAM.

[sunnysoilscience@gmail.com](mailto:sunnysoilscience@gmail.com)