

EFFECT OF POULTRY MANURE AND PSB CULTURE IN CONJUNCTION WITH DIFFERENT LEVELS OF PHOSPHORUS ON GROWTH AND YIELD OF BLACK GRAM (*VIGNA MUNGO* L.)

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Abstract: The experiment was conducted during *kharif* (july-oct.) season 2016 on crop research farm of Department of Soil Science and Agricultural Chemistry, Naini Agricultural Institute, Allahabad. By order to evaluate the effect of different treatment of poultry manure and PSB culture with levels of phosphorus. The growth and yield parameters viz. Plant height (cm), Number of leaves (plant^{-1}), Number of braches (plant^{-1}), Number of pods (plant^{-1}). All parameters of growth and yield of Black gram are found significant. The best treatment was found T₉ (P 100% + PSB culture) that showed the highest yield regarding, gave the best results with respect to plant height (56.43 cm), number of leaves plant^{-1} (46.20), number of branches plant^{-1} (8.00), test weight of 1000 seed (40.23 g), grain yield (8.58 q ha^{-1}) and straw yield (21.74 q ha^{-1}) respectively. The treatment was significantly higher as compared to other treatment combination. The economy of different treatment concerned, the treatment T₉ (P 100% + PSB culture) provides highest net profit of 62057.00 with cost benefit ratio is 1: 3.73 however, the minimum net profit of 41219.00 was recorded in the treatment T₄ (P 50% + un inoculated) with cost benefit ratio is 1:2.91.

Keywords: Black gram, Poultry manure, PSB, Phosphorus

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