

EFFECT OF VARIOUS ORGANIC NITROGEN FERTILIZATION ON GROWTH, YIELD AND QUALITY OF KHARIF MAIZE (*ZEA MAYS* L.)

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Abstract: A field experiment was conducted to evaluate effect of various organic nitrogen fertilization on growth, yield and quality of *kharif* grain maize (*Zea mays* L.) at agricultural research farm of Banaras Hindu University during *kharif* season of 2015. At the experimentation site soil analysis was done before the sowing of the crop and after the harvesting of the crop. The net plot size was 3.0 m x 2.1 m for row to row and plant to plant spacing was 60 cm and 20 cm, respectively. The experiment was comprised of four organic source methods viz. B₁- 100% of RDN as GM, B₂ - 100% of RDN as VC, B₃ - 50% of RDN as GM +F50% VC, B₄- 100% of RDN Through inorganic sources and biofertilizer T₁. Control, T₂. *Azotobacter*, T₃ - *PSB*, T₄ -*PSB* + *Azotobacter*, Maize hybrid TRIPURESHWARI- 4477 was used as an experimental material. The experiment was laid out in split plot design and replicated thrice. Standard procedures were adopted for recording growth, yield and quality parameters. Organic materials (100 % RDN as GM, 100% RDN as vermicompost, 50 % RDN as GM + 50 % vermicompost and 100 % RDN through inorganic source was applied in the field. The significance of the treatment effect was judged with the help of 'F' test (Variance ratio). The difference of the treatments mean was tested using critical difference (C. D.) at 5% level of probability (Gomez and Gomez, 1984). Standard procedures were adopted for recording the data of agronomic and yield related parameters.

Keywords: Organic nitrogen, Biofertilizer, Green manure, Vermicompost, Tripureswari 4411, *Pseudomonas*, *Azotobacter*

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