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Effect of integrated nitrogen management and bio-fertilizer in *Kharif* pearl millet (*Pennisetum glaucum* L.)

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ABSTRACT : A field experiment was carried out during *Kharif* season of 2009 to study the effect of integrated nitrogen management through vermicompost, urea and *Azotobacter* on yield and economic of pearl millet [*Pennisetum glaucum* (L.) R. Br. emend. Stuntz]. The result revealed that application of 100 per cent RDN (75% through urea and 25% through vermicompost) significantly increased the growth, yield attributing characters and yield of pearl millet however, it was at par with 100 per cent RDN through urea. Inoculation of seed with *Azotobacter* also resulted significantly higher plant height at time of harvest, yield attributing characters and yield. Interaction effect between nitrogen management and bio-fertilizer was found significant in case of grain and straw yield. Application of 100 per cent RDN through 75 per cent urea and 25 per cent vermicompost along with seed treatment with *Azotobacter* recorded higher grain and straw yield however, the straw yield was at par with that of treatment 100 per cent RDN through urea with *Azotobacter* inoculation. Same treatment recorded higher net return and benefit : cost ratio.

Key Words : Pearl millet, Bio-fertilizer, Integrated nitrogen management

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