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Research Article

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Effect of organic manures and *Azospirillum* on productivity and economics of maize (*Zea mays* L.)

■ ATOU KHARUTSO, A. P. SINGH, L. TONGPANG LONGKUMER, P. L. SINGH AND P. K. SINGH

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MEMBERS OF RESEARCH FORUM:

Corresponding author :
A.P. SINGH, Department of Agronomy, School of Agricultural Sciences and Rural Development, Nagaland University, MEDZIPHEMA (NAGALAND) INDIA
Email: apsinghagronomy@gmail.com

Co-authors :
ATOU KHARUTSO, L. TONGPANG LONGKUMER AND P. L. SINGH, Department of Agronomy, School of Agricultural Sciences and Rural Development, Nagaland University, MEDZIPHEMA (NAGALAND) INDIA

P. K. SINGH, Department of Agricultural Chemistry and Soil Science, School of Agricultural Sciences and Rural Development, Nagaland University, MEDZIPHEMA (NAGALAND) INDIA

Summary

A field experiment was conducted during the *Kharif* season of 2013 at Agronomy Research Farm, School of Agricultural Sciences and Rural Development (SASRD) Nagaland University, Medziphema, to study the effect of organic manure and *Azospirillum* on productivity of maize (*Zea mays* L.) under the agro climatic condition of Nagaland. The experiment was laid out in RBD replicated thrice with seven treatments *i.e.* FYM @ 10 t ha^{-1}, vermicompost @ 5 t ha^{-1}, pig manure @ 5 t ha^{-1}, FYM @ 10 t ha^{-1} + *Azospirillum* @ 20 g kg^{-1} seed, vermicompost @ 5 t ha^{-1} +*Azospirillum* @ 20 g kg^{-1} seed, pig manure @ 5 t ha^{-1} + *Azospirillum* @ 20 g kg^{-1} seed and control. The plant height, number of green leaves plant^{-1}, stem thickness (cm), and leaf area index were recorded highest with application of FYM @ 10 t ha^{-1} followed by FYM @ 10 t ha^{-1} + *Azospirillum* @ 20 g kg^{-1} seed. FYM @ 10 t ha^{-1} has also produced highest yield attributing characters like cobs weight (120.51 g), number of grain rows (34.84), length of cob (15.29 cm), grain weight (81.66 g), grain yield(1.82 t ha^{-1}), straw yield (3.01) and B:C ratio 2.5.

Key words : Biofertilizers, FYM, Maize, Pig manure, Vermicompost

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