

Integrated Nutrient Management in Groundnut(*Arachis hypogaea* L.)- Maize (*Zea mays* L.) Cropping System

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ABSTRACT

A field experiment was conducted on integrated Nutrient Management in Groundnut (*Arachis hypogaea* L.)- Maize (*Zea mays* L.) Cropping System during two consecutive years (2015-2016 and 2016-2017) at the Agricultural Research Station, Vizianagaram of Acharya N.G. Ranga Agricultural University (ANGRAU), in the North - Coastal Agro-Climatic Zone of Andhra Pradesh, to study the effect of integrated nutrient management practices on growth and yield of *kharif* groundnut and succeeding *rabi* maize. Among all, the RDF along with bio-fertilizers application, maximum values for vegetative parameters were recorded with the application of $RDF_{150} + FYM 5 t ha^{-1}$ and the higher pod yield and yield attributes were recorded with $RDF_{125} + FYM 5 t ha^{-1}$ which was, however, comparable with $RDF_{100} + FYM 5 t ha^{-1}$. The research results of succeeding maize revealed that, growth parameters, yield attributes, yield and economic returns were significantly influenced by the treatments given to preceding groundnut crop in the sequence. Among all the treatments, the plant height, drymatter production, yield attributes and the yield maximum recorded with the treatment combination of $RDF_{100} + Azospirillum + PSB + VAM +$ with groundnut crop residue incorporation which was, however, comparable to combinations $RDF_{125} + FYM_{5t} + Rhizobium$ inoculation +PSB+VAM and $RDF_{100} + FYM_{5t} + Rhizobium$ inoculation +PSB+VAM.

Key words: *Biofertilizers, Growth, Groundnut-Maize cropping system, Integrated Nutrient Management, Yield.*