

# EFFECT OF PLANT POPULATION AND N FERTILIZER ON THE GROWTH AND YIELD OF BAMBARA GROUNDNUT (*VIGNA SUBTERRANEA* (L.) VERDC.)

Uchehara, C.P., Onyeonagu, C. C. \* and Asiegbu, J. E.

*Department of Crop Science, University of Nigeria, Nsukka, Nigeria*

\*Corresponding author, e-mail: onyeonagu@yahoo.com

## ABSTRACT

*Responses of bambara groundnut (*Vigna subterranea* (L.) Verdc) to 3 levels of fertilizer N (0, 50, and 100 kg N/ha) and seven plant populations (55555, 63492, 74074, 88888, 111111, 148148 and 222222 plants/ha) were studied under field conditions in Nsukka, Nigeria. The experimental design was a randomized complete block and there were three replications. Seed yield progressively increased with increasing plant population, being significantly highest at 222,222 plants/ha. The application of 100 kg N/ha increased the total dry matter per plant compared with no application or with 50 kg N/ha, although seed yield benefits were not readily apparent. Nodulation was not statistically influenced by N treatment although zero or- low N application showed a slight increase in nodulation, suggesting a lack of adequate population of the effective rhizobium in the location. Inoculation of bambara groundnut seeds with effective rhizobium strain before planting becomes necessary for good nodulation and production of the crop under Nsukka agro-ecological conditions.*

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