

Nitrogen content and effect of different nitrogen rates and lime on the growth and yield of african yam bean (*Stephenpstyli stenocarpa*) in Makurdi, Nigeria

Moses Ogbaji,

Federal University Of Agriculture, Makurdi, Nigeria.

Statement of the Problem: Food security and sustainability is a serious challenge in Africa. Legumes are the main source of protein since most people cannot afford animal protein. Many indigenous legumes of Africa with potentials to ameliorate nutritional food securities are presently neglected and underutilized. African yam bean (*Spenostylis stenocarpa*) (AYB) is one of such crops with tremendous nutritional value. The purpose of this study is to highlight the nutritional significance of AYB and its response to N and lime fertilizers. Methodology and theoretical orientation: The nutritive value of AYB including Nitrogen content was therefore compared with cowpea (*Vigna unguiculata* (L.) Walp) in the laboratory using the methods of AOAC (1995). Kjeldahl method was used to determine the Nitrogen content. Secondly, a field experiment using Randomized Complete Block Design (RCBD) was carried out in 2017 to test the growth and yield response of five varieties of AYB to different nitrogen and lime rates. Findings: Results of the study indicated that AYB was as nutritious as cowpea when all the nutrients including nitrogen in percentages were compared. AYB gave a nitrogen content of 0.096% compared with that of cowpea (0.093%). Similarly, 90 kg N /ha combined with 90 kg lime /ha better enhanced the growth and yield of different AYB varieties better than all other treatment combinations. The interactive effects between fertilizers and the different accessions of AYB were also significant. Conclusion and significance: Further intensified research findings to encourage the production, wide consumption and general acceptability of AYB are hereby strongly advocated in Africa.