EVALUATION OF NUTRIENTS AND ANTI-NUTRITIONAL FACTORS OF DIFFERENT SPECIES OF AFRICAN YAM BEAN (SPHENOSTYLIS STENOCARPA)

1.Onuoha, Chikaodiri H,   1. Harry, Bassey J.   & 2. Eze, Sunday O.

1. Institute of Agricultural Research & Training, Obafemi Awolowo University
P.M.B 5029, Apata Ibadan, **NIGERIA**
2.Department of pure and Industrial Chemistry, Abia State University
PMB 2000, Uturu, Abia State, **NIGERIA**

ABSTRACT

Six species of African Yam Bean (AYB) collected from three agro-ecological zones of Nigeria- the gene bank of the Institute of Agricultural Research & Training (I.A.R &T) Ibadan, in South West Zone, local market in Obanliku L.G.A, Cross River State, in South South Zone, and a local market in Ohuhu, Umuahia North L.G.A, Abia State, of South East Zone all in Nigeria were analyzed for their nutrients and anti-nutritional factors using standard methods. The study was aimed at recommending the use of the best of these species in livestock feed production. The analysis was carried out in replicates for all determinations and the results of the replicate were expressed as mean $\pm$ SEM. Data obtained were subjected to analysis of variance (ANOVA) using SAS (2004), version 9.0 software. Differences between the means were separated by Duncan Multiple Range Test (DRMT) at 5% (0.05) level of significance. The results of the nutrient evaluation obtained from the proximate analysis and anti-nutritional composition of the seeds as carried out showed that there were significant differences ($p < 0.05$) among the nutrients and the anti-nutritional factors and the oligosaccharide levels of the different species used. The results also indicated that those species with white or closely white colour have nutrient values that are considered good for incorporation in animal feed.

Keywords: Species, African Yam Bean, Anti-nutritional factor, oligosaccharides, proximate analysis.