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Evaluation of genetic diversity in nigerian egusi melon (*colocythis citrullus*) using proximate and fatty acid analysis

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Citrullus colocynthis is a variety of melon seeds, popularly called 'egusi' in West Africa. It belongs to a large family called Cucurbitaceae, which consist of 119 genera and about 925 species. In order to assess the genetic diversity of Egusi melon (*Colocynthis citrullus*), a germplasm exploration was undertaken to the major growing states in Nigeria. Seeds from eight melon samples (*Colocynthis citrullus*) collected from different locations in 8 States across Nigeria were assessed using proximate and fatty acid composition. The seeds were grown at Experimental garden Federal University of Technology Minna during the 2015-2016 and 2016-2017 growing seasons to eliminate variations due to environmental differences using a complete randomized blocks designed (RCBD) with four replicates. Proximate and Fatty acid analysis was carried out on the shelled Melon seeds according to the standard Method of Association of Analytical Chemists. Data pooled on each proximate and fatty acid attribute in triplicate was subjected to Analysis of Variance (ANOVA) and Duncan Multiple Range Test (DMRT) was used to separate the means, values were reported in percentage %. The result of the proximate and fatty acid composition showed significant differences among the different melon genotypes, which indicates that genetic diversity exists among Nigerian Egusi melon. It is therefore recommended that egusi melon genotypes should be selected from different geographical areas in Nigeria to exploit the genetic diversity available for the improvement of proximate and fatty acid composition.

Biography

Aishatu Adamu Gado has completed her PhD at the age of 42 years from Federal University of Technology Minna. She is a Lecturer with the Department of Plant Biology Federal University of Technology Minna, Nigeria. She has published more than 20 papers in reputed journals, and over 20 Conferences papers.

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