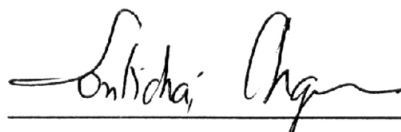


Aunchana Rodrungnok 2006: Genetic Diversity Study in Bambara Groundnut [*Vigna subterranea* (L.) Verdc.] using AFLP Technique and Some Morphological Characters.
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Amplified fragment length polymorphism (AFLP) was used to evaluate genetic variation and to assess genetic relationships among 40 accessions bambara groundnut [*Vigna subterranea* (L.) Verdc.] including 39 accessions from International Institute of Tropical Agriculture (IITA), Nigeria and one Thai's cultivated (Songkhla 1). Sixteen AFLP primer combinations between *EcoRI* and *MseI* primer generated total 867 bands with 151 scorable polymorphic bands across bambara groundnut accessions. Genetic similarity was calculated by computer software. The similarity matrix was then subjected to cluster analysis by unweighted pair-group method with arithmetic average (UPGMA) and dendrogram was created. Genetic variation between all accession based on similarity index ranged from 0.59 – 0.89. The results showed that bambara groundnut accessions possess genetically variation and AFLP markers can be effectively employed to assess genetic variation and to measure genetic relationship among accessions. Clustering analysis revealed that all bambara groundnut accessions constitute nine major groups corresponding to their geographic origin and some qualitative morphological characters on seed such as testa pattern, eye pattern, eye ground color and eye color.

Aunchana Rodrungnok.

Student's signature



Thesis Advisor's signature

24 / 10 / 06