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Agromorphological characterization of cassava (*Manihot esculenta* Crantz) accessions cultivated in Gabon's South West agricultural production hubs

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ABSTRACT

Objectives: Improving cassava production yields requires, among other factors, a scientific understanding of the accessions used in the country. This study aimed to assess the agromorphological diversity of cassava accessions grown in Gabon.

Methodology and Results: A total of 75 cassava accessions collected from the agricultural production hubs in the South West region of Gabon were characterized using nine agronomic descriptors. The descriptive analysis revealed heterogeneity and phenotypic differences for the parameters studied. Principal component analysis confirmed a variability of 56.8% among the accessions. Hierarchical ascending classification categorized the accessions into three clusters, identified as Cluster 1, Cluster 2 and Cluster 3,, based on morphological diversity.

Conclusions and application of findings: Cluster 3 included 56 accessions, that have the main stem height (MSH), the number of tuberous roots per plant (NTR/P), and the weight of tuberous roots

per plant (WTR/P) values close to the average for the collection. In contrast, four accessions in cluster 2 had values higher than the average for these same descriptors: MSH, NTR/P, and WTR. Knowing these different groups will help policymakers, government officials in the Ministry of Agriculture, researchers, and farmers involved in the cassava production chain in Gabon make informed decisions for a better future for cassava.

Keywords : Accession, Cassava, Classification, Agronomic descriptors, Gabon.