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Genetic diversity of cassava accessions from two regions of Amazon State, Brazil

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Cassava (*Manihot esculenta* Crantz) is one of the foods more **consumed in the North region of Brazil.** The regional Active Bank of Cassava Germplasm was created to preserve the erosion of local varieties at Embrapa Western Amazonian in Manaus, State of Amazon.The preliminar use of germplasm resulted in several cassava clones selected for both high production and disease resistance. The next step of reseach demands a better knowledge of the preserved genetic variability to improve utilization and **management** of the large germplasm collection. The study aimed to assess the genetic diversity of accessions collected in two regions from Amazon State, 120 from Lower Amazon River and 120 from Madeira River, using Inter Single Sequence Repeats (ISSR) markers. DNA was isolated of fresh leaf tissue using the modified CTAB protocol and the products of PCR were separate in agarose gel 1.5%. Fifteen selected primers of one hundred UBC primers from the University of British Columbia were used for preliminar polimorphism analysis.The primers studied produced a total of 160 scorable bands, of which 90% were polymorphic among the acessions from the two regions stidied. The number of polymorphic bands per primer varied from 6 to 23 for the $(GAA)_6$ and $BHB(GA)_7$ reapeats, respectively. According to the dendrogram from UPGMA analysis of the Jaccard´s genetic similarity coefficient the a**ccessions from Lower Amazon river were grouped** into four clusters while the **accessions from Madeira river were** distributed into seven clusters. The first group concentrated more than 80% accessions of different local origins with genetic similarity value in the range of 0.70–0.92. The results suggest that **germplasm collected from Madeira river present more** polymorphisms than those from lower Amazon river.

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