

Genetic relationships of *Theobroma grandiflorum* accessions from Amazon Region

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Cupuassu tree is economically important native fruit specie usually find in homegardens of residences and small farmlands. The collect and characterization of germplasm are essential for its utilization in programs of conservation and genetic improvement. The Inter Single Sequence Repeats (ISSR) markers have provided valuable information about the DNA polymorphism among simple sequence repeats in the genome of many species. The objective of this work was select markers ISSR to examine the genetic relationships among 84 accessions collected in four microrregions of the Amazon basin (lower and middle Amazon River, upper Solimoes River and Bragantina) and maintained in in Active Germplasm Bank (BAG - Cupuassu) from Embrapa Western Amazonian. The research was developed in the Laboratory of Molecular Biology of the Embrapa Western Amazonian. Initially, primers originated from the University of British Columbia (UBC) were evaluated to select a set of eight primers with ability to produce clear and reproducible patterns of bands. The ISSR primers selected produced a total of 75 bands, with average number of 9.38 scorable fragments per primer. The **number** of polymorphic **bands per primer** varied from thirteen (GA)₈A to six (TG)₈A. According to the dendrogram from UPGMA analysis of the Jaccard similarity the results **showed** that ISSR markers can distinguish cupuassu germplasm. However, acessons from Bragantina were clustered together upper Solimoes River and middle Amazon River. These results indicated that acessons from lower Amazon River and Bragantina presented more genetic diversity than upper Solimoes River and middle Amazon River.

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