



Comparison of eight methods of genomic DNA extraction from babassu

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ABSTRACT. Babassu (*Orbignya phalerata* Martius) is one of the most important palms in Brazil because of the largest morphological variation, wide geographic distribution, and high socio-economic importance. The diversity present in babassu germplasm should be protected against loss to ensure their use with high productivity. Study of the available variability in populations of babassu is necessary to develop conservation strategies. The study of genetic variability can be conducted using molecular markers and many of these studies require significant quantity of high-quality DNA. The present study aimed to effect comparison among eight DNA extraction methods in case of *O. phalerata*. The quality and concentration of nucleic acids were analyzed by spectrophotometry and integrity of DNA was ascertained by agarose gel electrophoresis. The spectrophotometry revealed that some methods resulted in high levels of concentration of nucleic acids,

in which values of the ratio $A_{260/280}$ and $A_{260/230}$ were outside the range of purity. The agarose gel electrophoresis established the concentration and integrity of DNA. The methods of Murray and Thompson (1980) and Ferreira and Grattapaglia (1998) did not result in satisfactory quantities of DNA. Conversely, the method proposed by Khanuja et al. (1999) resulted in DNA of adequate quality and quantity that could be satisfactorily used for amplification reactions performed with two ISSR primers.

Key words: Genetic resources; Genetic variability; Germplasm;
Orbignya phalerata