

TITLE: BIOPROSPECTING OF ENZYMES OF BIOTECHNOLOGICAL INTEREST FROM YEAST PRESENT IN AÇAÍ SEED

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Açaí berry is a purplish color fruit which contains lipids, proteins, fibers, minerals and anthocyanins. The state of Pará is responsible for 75% of its world production. After using its pulp, about 83% of its total mass is wasted, and there are not many alternatives of recycling it. The aim of this work is to describe the methods and procedures used to isolate microorganisms present in açaí seeds, as well as the screening of producers of enzymes with biotechnological interests. Samples of açaí seeds were obtained from the city of Castanhal, in the state of Pará, Brazil. The microorganisms were isolated using serial dilution techniques followed by inoculation in a solid medium. Subsequently, the isolated colonies were selected and inoculated using the technique of streaking made to confirm the isolation. The isolates were screened for the production of extracellular enzymes using indicator media. The detection of enzyme activity occurred after inoculation of yeast on solid medium in the presence of carboxymethylcellulose 0,5%, pectin 1%, milk powder 1% , gelatin 1% and Esculin 0,1%. A total of 13 yeast colonies were isolated from the initial sample; wherein 1 showed cellulolytic, 6 proteolytic, 12 pectinolytic and 6 glycosidic activities. This work is the first to explore the potential of yeast with biotechnological potencial isolated from açaí seeds. Further analyzes, not described in here, are being performed to know the specificity of the extracellular enzymes and to identify the microorganisms found. These microorganisms will be subsequently harvested using liquid medium in order to obtain enzymes, which will be purified and characterized.

Key Words: Bioprospecting, Enzymes, Biotechnology, Yeast, Açaí.

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