Biotechnological Potential Analysis of Four Oleaginous Species From the Brazilian Cerrado Biome To Be Applied in the Regional Economic Context

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This project aims to study the biotechnological potential of four oilseed species from the Brazilian Cerrado, regarding the biometric parameters of the fruits, as well as their oil, pulp and mesocarp physicochemical characteristics and their possible applications, in order to contribute to scientific research, technology, innovation and improvement programs of the Human Development Index. The methods applied were: Raw Material Collection; Obtaining the Pulp; Obtaining Statements; Photochemical Screening; Quercetin Analysis; Antioxidant Activity – DPPH Sequestration technique; Antioxidant Activity – B-carotene/Linoleic Acid measuring; Sun Protection Factor (FPS); Determination of moisture; Determination of acidity; Determination of pH; Determination of iron content; Lipid determination; Vitamin A extraction and analysis; Obtaining vegetable oil and physical chemical analysis; Tests for applying the results in economic activity; Statistical analysis. Regarding the physicochemical results respectively: Macauba, anaja coconut, tucum and bacuri coconut; (Acidity index mg KOH/g 3.75 2.79 2.80 2.76); (Peroxide index meq O2/kg 0.40 0.410 0.39); (Humidity % 0.05 0.04 0.04 0.05); (Iodine index regions, Wijs 17.03 16.34 16.37 15.45); (Saponification index (mg KOH/g 189.8 176.9 179.23 175.35 25.2); (Relative density at 25º C g/mL 0.914 0.845 0.765 0.763). The physicochemical properties are very important factors to be consider and to understand the great uses of these fruits. The analyses were carried out with the objective of understanding how these characteristics could benefit the communities involved in the project, as well as contribute to the growth of the Human Development Index (HDI). Keywords: Human development, Food, Animal feed, biotechnology, potential, oils.