

Patent Mining as a Tool for Innovation Planning and Biodiversity Access: Technologies of *Açaí* Palm Fruit (*Euterpe oleracea* Mart.).

Heitor Cappato Guerra Silva¹, Letícia de Castro Guimarães², Fabiana Regina

Grandeaux de Melo², Foued Salmen Espindola^{1, 2}

¹*Institute of Genetics and Biochemistry and* ²*Intellect Agency, Federal University of*

Uberlandia. Uberlândia, Minas Gerais, Brazil.

Research and innovation using natural extracts and their compounds from biodiversity resources, enable breakthroughs in discoveries such of new drugs, foods and cosmetics. Bioinformatics approaches such as text mining of patent databases can reveal a global view of the efforts to access natural products and its bioactive molecules from biodiversity hotspot and thus providing information and opportunities to implement bio-entrepreneurship, public policies and measures for the use and conservation of different biomes and their threat biodiversity. Thus, the aim of this work was search patents of the palm fruit *Euterpe oleracea* Mart. (*açaí*) using the Thomson Innovation database, that cover world patents, and have many tools to analyze and categorize them. The search strategy was the choice of keywords and setting the search period. Using the keywords *Euterpe oleracea*, acai and assai, looking for cover all the possibilities and the period established was from 2006 to 2015, considering the publication date. This period contains more than 2338 published patents equating to almost 826 patent families, a patent family is one or more published patent originating from a single original (priority) application. We evaluated the number of published patents by publication year, which suggests an increase of publication in these recent years, top applicants and their profile, Countries that have higher number of published documents. The distribution of documents according with IPC classification, as 61K that refers a hygiene, cosmetics products for human healthy, that have 294 published patent, and the top applicants are all international companies. Besides Text Clustering, that automatically categorize documents through the linguistic analysis of text found in the fields title, abstract and claim, to evaluate the different application areas, and based on same fields we visualize the ThemeScape map, a two-dimensional map displaying the relative relationship of one record to another using common conceptual term, which allows to investigate the technological trajectories. The aim is that the results presented here guides lines and research projects, development and technological innovation related to biotechnology with natural products; seek to improve the idea of protect the work before publication. In addition, using bioinformatics approaches to improve the culture of Innovation at the Brazilian Universities, Institutions and Industry.

Financial Support: CNPq, Fapemig and PROPP/UFU.