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SURVEY OF BRAZILIAN NATIVE FIBROUS PLANTS WITH TEXTILE POTENCIAL

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Natural fibres have been used since the dawn of civilization. As of the past half century they were gradually replaced by man-made fibres. Despite the economic and productive advantages of the man-made fibres, they are produced on a large scale from petrochemicals and through environmentally and socially expensive processes. Due to increased concern about sustainability, natural fibres came back to develop an important role as an alternative to man-made fibres in several applications, they can provide health and comfort benefits, socioeconomic development of rural people, sustainable development and minimization of environmental impacts. Brazil is among the most biologically diverse countries on the planet and its flora represents a source of potential resources. However, the knowledge and applicability about Brazilian flora are diffused and there are still several data forgotten in antique classical works such as Pio Corrêa (1910, 1919, and 1926) and Medina (1959), which are fundamental to subsidize new experimental studies within a new socioeconomic and technological perspective. For that purpose, this study aimed to systematize data about native plants of botanical families whose number of fibrous species is relevant. The species were classified according to their geographic distribution, vegetation type, parts of the plant used for extraction and application. Among the botanical families studied (*Amaryllidaceae, Bromeliaceae, Liliaceae, Areaceae, Poaceae, Cyperaceae, Malvaceae, Urticaceae, Bombacaceae, Tiliaceae, Moraceae* and *Thymelaeaceae*) almost 170 native fibrous species were catalogued. They were systematized by creating a database. Based on a qualitative assessment, we selected the top 45 most relevant plants for textile application. The results reaffirm the high potential of the native flora as a source of vegetal fibres and reveal the feasibility to conduct experimental studies with several species in order to obtain more data about its properties and applications.

Keywords: fibrous plants; Brazilian flora; textile materials.