Galoá

ISSN: 2447-2840

CHARACTERIZATION OF PULP POWDER OF MURICI (Byrsonima crassifolia (L.) Kunth and verbascifolia (L.) DC.) AND TAPEREBÁ (Spondias mombin) FOR USE AS FUNCTIONAL FOOD

Thuane Oliveira (/slaca/slaca/autores/thuane-oliveira?lang=en);
Vanessa Rosse de Souza (/slaca/slaca/autores/vanessa-rosse-de-souza?lang=en);
Júlia Montenegro (/slaca/slaca/autores/julia-montenegro?lang=en);
Joel Pimentel de Abreu (/slaca/slaca/autores/joel-pimentel-de-abreu?lang=en);
Nayara Frauches (/slaca/slaca/autores/nayara-frauches?lang=en);
Anderson Junger Teodoro (/slaca/slaca/autores/anderson-junger-teodoro?lang=en);
Otniel Freitas Silva (/slaca/slaca/autores/otniel-freitas-silva?lang=en)

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Track

Caracterização química e físico-química de alimentos (FQ)

Keywords

Brazilian exotic fruits, Antioxidant, functional food

In Brazilian biodiversity, there are exotic fruit species, such as murici (Byrsonima crassifolia (L.) Kunth and verbascifolia (L.) DC.) and taperebá (Spondias mombin), with unique sensorial characteristics and high concentrations of nutrients and bioactive compounds, that give them a great bioactive potential. This study was carried out to evaluate the functional potential of pulp powder of murici and taperebá through the antioxidant capacity, the contents of total phenolic and carotenoids compounds. Furthermore, the total phenolic contents and antioxidant activity (AA) in vitro of pulp powder of murici and taperebá were assessed by folin-Ciocateau, DPPH FRAP, ABTS and ORAC. The carotenoid profile was also determined by high-performance liquid chromatography (HPLC). Results indicated that the taperebá and murici pulp powder contained an important amount of phenolic and carotenoids compounds. Taperebá has the highest value of phenolic compounds (963.96mg ácido gálico/100g) and total carotenoids (243.19μg/g). Six carotenoids were identified in both pulp powder: β-cryptoxanthin, lutein, zeinoxanthin, α and β carotene, and zeaxanthin, being lutein the major one in pulp powder of murici (23.39μg/g) and β-cryptoxanthin in pulp powder taperebá (99.08μg/g). Regarding the antioxidant assays, taperebá showed the high values of AA for DPPH (338.83 μmol trolox/g), ABTS (456.01 μmol trolox/g) and FRAP (352.80μmol ferrous sulphate/g) compared to taperebá whose values were 216.46 μmol trolox/g, 401.19 μmol trolox/g and 148.28μmol ferrous sulphate/g, repectively. ORAC analysis revealed no significant differences (p>0,05) between taperebá (71.59mmol trolox/g -1) and cajá (74.44mmol trolox/g -1) powders. These results expose a potential of Brazilian exotic fruits approach for improving human health through consumption of murici e taperebá or to be used by the food industry.