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New sources of unconventional oil applied to the food industry: baru and pequi

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Vegetable oils are important for human health because of their composition of triacylglycerols, fatty acids, vitamins, tocopherols, phenolic compounds, phospholipids, sterols, and carotenoids that can promote health benefits. The global vegetable oil market is projected to grow at 5.14% during 2020-2025. The search for alternative sources of these compounds in the food matrix of vegetable origin becomes increasingly necessary to meet the demand for different characteristics and functionalities, since oil for human consumption (food, salad oil, or in the formulation of food products) may not meet future demands. Characterizing vegetable oils in relation to technological properties such as fatty acid composition, thermal and oxidative stability, density, and viscosity are necessary to define the industrial application, and vary according to the type of source, lipid composition, and planting region. The presence of natural antioxidants, such as phenolic compounds, in the plant matrix can minimize the effect of oxidation on lipid products. In recent years, research on the characterization of unconventional sources of vegetable oil extraction has been increasing. For the vegetable matrices pequi (*Caryocar brasiliense*) and baru (*Dipteryx alata* Vog) studies present the characterization regarding physical, chemical and technological properties and how the exploration of these sources can bring promising results for application in the food industry. Thus, new sources of oil can provide an alternative source of conventional edible oil, which can meet the edible oil deficit of the country with economic contribution.

Keywords: lipid characterization, thermal stability, plant exploration

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