



FATTY ACID PROFILE OF *Hymenaea courbaril*

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In the state of Acre, in the Brazilian Amazon region, the local population uses the pulp of Jatobá fruit (*Hymenaea courbaril* L - Leguminosae Caesalpinioideae) as a food ingredient for consumption. Drinks, cakes, porridge and various regional dishes are prepared based on flour of this pulp [1]. Nevertheless, there is little information about the bioactivity and chemical of the edible part of the fruit. In this context, the aim of this work was the phytochemical analysis of the fruit oily portion of this species. The botanical material (fruits) was collected in Rio Branco city (AC - Brazil), and its pulp was dried in an oven with air circulation (35°C). The milled flour obtained (450g) was macerated in an orbital shaker with hexane (3 × 500 mL) to yield 19.6g of extract (4.3%). Analysis by thin layer chromatography on silica gel (hexane: ethyl acetate 9: 1) revealed with vanillin/sulfuric acid indicated the presence of two main spots. The material was methylated with diazomethane and analyzed by GC/MS fitted with a HP-5MS capillary column (30m × 0.25 mm, 0.25µm of film thickness). The temperature program was set up from 50 ° C to 250°C with 4°C/min, the injector and detector temperatures 280°C and Helium was used as carrier gas. The injection volume was 2µL. The chromatogram analysis identified two major components: Z-9,12-octadecadienoic acid (linoleic acid - 58.65%) and Z-9-octadecenoic acid (oleic acid - 35.96%), related to 94.61% of the hexane extract composition, indicating that the fruit pulp contains a high content of unsaturated fatty acids. These results show that the fruits of *Hymenaea courbaril* can be an important source of essential fatty acids such as omega-6 (linoleic acid), worldwide recommended for lowering plasma triglycerides.

References:

[1] Jayaprakasam, B., Alexander-Lindo, R.L., DeWitt, D.L. and Nair, M.G. 2007. Terpenoids from Stinking toe (*Hymenaea courbaril*) fruits with cyclooxygenase and lipid peroxidation inhibitory activities. Food Chem. 105: 485-490.