**[PS2.63]**

# Selective Extraction of Fatty Acids and Unsaponifiable Matter of *Caryocar brasiliense* Camb and *Acrocomia aculeata* Pulp.

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*Caryocar brasiliense* Camb. (pequi) and *Acrocomia* aculeata (macaúba) are tropical fruits widely distributed in the Brazilian cerrado. In dry basis, the pequi and macaúba pulps are mainly constituted of lipids (45 to 50%) and (35 to 40), respectively. Its' fruits oils are, usually, applied in the cosmetics and food local industry. In this study, the pequi and macaúba raw-fruits were collected in the Minas Gerais, Brazil. The fruits were autoclaved at 121ºC for endogenous lipase inactivation and stored under refrigeration for subsequent processing. The pequi and macaúba pulps were submitted to drying under convective air at 55 $^{o}$C until constant weight, reaching final moisture content about 10 %. The pulp processing was performed to produce two fractions oils: cold-pressed oil and ethanol-based oil. The cold-pressed oil was obtained from dried pulp in a continuum press (expeller) at room temperature (22 $\pm$ 1 $^{o}$C) and then filtered under vacuum. The pressed-cake was submitted to solid-liquid extraction using ethanol (99 $^{o}$GL) as solvent at 60$^{o}$C and solvent/substrate ratio of 2:1. Then, the ethanol-based oil was recovered by decantation at 5 $^{o}$C. The fatty acids composition was evaluated by high-resolution gas chromatography using high purity methyl esters as external standard. The unsaponifiable matter was carried out by a modified method (Hartman, Viana & Freitas, 1994). The cold-pressed pequi oil presented higher (33 %) saturated fatty acids and smaller unsaponifiable matter (about 32%) contents, compared to ethanol-based cake oil. Regarding the cold-pressed macaúba oil no difference was observed, according Fisher test ($p<0.05$), in the total saturated and unsaturated fatty acids. Unlike other vegetable oils, the unsaponifiable matter in the cold-pressed macaúba oil was found 3.8 times greater than in ethanol-based cake oil.

Hartman, L.; Viana, H.S.; Freitas, S.P. Modified method for the determination of unsaponifiable matter in oils and fats. Analyst, v.119, p.1793,1994.

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