Xanthoceras Sorbifolium as a Source of Essential Oils.

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XANTHOCERAS SORBIFOLIUM AS A SOURCE OF ESSENTIAL OILS

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Xanthoceras sorbifolium was prospecting as a source of essential fatty acids usable in cosmetics or nutraceuticals. The fruits of the *Xanthoceras sorbifolium* contain a considerable amount of fatty cores with a large number of essential oils. The fruit that is edible is a large 60 mm diameter round capsule containing 6-18 black seeds with a diameter of 15 mm.

These oils were obtained by extraction using various solvents. Prior to extraction, the seeds, which have a very hard shell, were crushed into a thick slurry. After adding solvents with different polarities (in two parallels), the seeds were extracted at room temperature for two days. Solvents set of polarity increase - hexane, mixtures hexane / ethanol 2: 1, hexane / ethanol 1: 1 (by volume), chloroform, isopropyl alcohol and ethanol (96%) was tested. The lipid extract was dried for 40 hours at temperature 130 ° C. The chloroform as the sole extraction agent did not provide a transparent extract. Contrary, oils obtained by extraction using hexane and the mixture 2:1 v/v hexane/ethanol provided the pure transparent oils. Moreover, the mixture 2:1 v/v hexane/ethanol was identified as the optimum solvent system with the highest extraction yields of essential oils.

It can be summarized that the fruits of the Xanthoceras sorbifolium reveal a high potential as a source of various triacylglycerides and subsequent essential fatty acids.

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