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## Neglected Native Oil Crops as Sources for Biodiesel Production in the Eastern Amazon Region of Brazil, Western Pará State

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### Abstract

The Brazilian Amazon Region shelters a large amount of more or less neglected oil crops, fairly known by local land populations. Some of these are high oleaginous, with varied oil concentrations, which could serve in near future to support the growing Brazilian Biodiesel market with enough raw materials to accomplish the 2 % mixture target with conventional Diesel set by the end of 2007. These crops indeed don not serve only for energy supply purposes, which would be a cheap sell out of this raw material. High oleic acid oils are well suited as well for cosmetic and/or medical uses and appear recently in large national cosmetic brands. The research team of the CEULS / ULBRA in Santarém (Pará state, Brazil) made between 2005 and 2006 a large biodiversity survey in the western Pará state region, along the municipalities of Santarém, Belterra, Uruará, Placas and Ruropolis and along the hydrographic basins of the Tapajos and Arapiuns Rivers, between geographical coordinates of W054°37'10,40" and W056°30'46,57", S02°24'57" and S04°15'48" covering a area the size of approximately 36,000 square kilometers. During the survey mainly specimens of Arecaceae were targeted, being tucumã (*Astrocaryum aculeatum*) with 22 % the most common species, followed by Inajá (*Attalea maripa*) (18 %), babassu (*Attalea speciosa*) (11 %), bacaba (*Oenocarpus bataua* Mart.) (10 %), Assai (*Euterpe oleraceae*) (8 %) and Coco curua (*Attalea microcarpa*) (7 %) amongst other eight species. The main oil crops belonging to other specie families were Brazil-nut (*Bertolletia excelsa*) and Piquia (*Caryocar villosum*) with frequencies of 10 % and 2 %, respectively. These results may give support to regional development policies concerning the Brazilian national aim to become a global player in regenerative energy forms.

**Keywords:** Biodiesel, Brazil, eastern Amazon, oil crops, Santarém