



Fatty Acid Profile and Chemical Composition of Seeds from *Jatropha curcas* During Fruit Ripening.

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Jatropha curcas (Euphorbiaceae) is a non-edible oil seed, which is considered a potential source for biodiesel production in several countries around the world. However, the feasibility of this crop has been hampered by the discontinuous blossom, which produces fruits with different ages, leading to heterogeneous ripening and making the mechanical harvesting more difficult. Therefore, the fruits are usually kept in the tree until they become brown and dried. This study was carried out to evaluate the effect of fruit ripening in the fatty acid and chemical composition of *J. curcas* seeds. The fruits of different genotypes, in maturity stages from green to dark brown, were collected from an experimental cultivation at the Institute of Agronomy/UFRRJ. After drying, the seeds were grounded, the oil extracted with petroleum ether (30–60 °C) in a Soxhlet apparatus for 16 h and analyzed by gas chromatography. Chemical composition was determined according to AOAC methods (2010). During ripening, the contents of oil (5–40% dry matter) and protein (10–25%) increased, while moisture and neutral fiber levels decreased. Regarding the fatty acid composition, palmitic and linoleic acids decreased, respectively, from 25 to 12% and from 40 to 25%, whereas the oleic acid increased from 20 to 50%.