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PEMURNIAN BEBERAPA JENIS LEMAK TENGKAWANG DAN SIFAT FISIKO KIMIA

(Refining Some Type of Illipe Nut's Fat and It's Physical-Chemical Properties)

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ABSTRACT

Illipe nut in Indonesia serves as one of the essential export commodities from non-wood forest products group. Illipe nut through the extraction can be processed into high-economic valued fat that could function as cocoa butter substitute (CBS), obtained through extraction of illipe nut. Illipe nut's fat that results from extraction process can not be directly used, but should be previously refined. In this study, refining of illipe nut's fat was conducted through degumming and neutralization process. Degumming process was carried out by adding acids (acetic, citric and phosphoric) each with 20% strength at 0,4% (w/w) to the fat that has been previously heated. The results showed that degumming using phosphoric acid produced a better quality fat compared to that with citric acid and acetic acid. NaOH was used for neutralization process. The resulting neutralized fat was then examined for its physical-chemical properties which revealed that such properties were not so far different from those of commercial illipe nut's fat. The GC analysis as conducted on the refined illipe nut's fat showed that it consisted of various saturated fatty acid as well as unsaturated and other chemical compounds. All of the examined illipe nut's fat in this research showed that oleic acid is the dominant component.

Keywords: Refining, illipe nut's fat, physical-chemical properties

ABSTRAK

Buah tengkawang merupakan salah satu komoditi ekspor Indonesia dari kelompok hasil hutan bukan kayu. Buah tengkawang dapat diolah menjadi lemak tengkawang yang bernilai ekonomis tinggi dan berfungsi sebagai *cocoa butter substitutes* (CBS) melalui proses ekstraksi. Lemak tengkawang dalam penggunaannya tidak bisa langsung digunakan, melainkan perlu dilakukan proses pemurnian terlebih dahulu. Dalam penelitian ini dilakukan pemurnian lemak melalui proses *degumming* dan netralisasi. Proses *degumming* dilakukan dengan penambahan asam (sitrat, asetat dan fosfat) sebesar 0,4% (b/b) dengan kekuatan asam 20% pada lemak yang telah dipanaskan. Netralisasi lemak menggunakan larutan NaOH. Hasil penelitian menunjukkan *degumming* menggunakan asam fosfat menghasilkan mutu lemak yang lebih baik dibandingkan dengan asam sitrat dan asam asetat. Kualitas lemak tengkawang hasil netralisasi secara fisiko kimia tidak jauh berbeda dengan lemak tengkawang komersial. Analisis asam lemak menggunakan GC menunjukkan bahwa lemak tengkawang mengandung asam jenuh dan asam tidak jenuh yang beragam. Dari semua lemak tengkawang yang diteliti, asam oleat merupakan kandungan yang paling dominan.

Kata kunci: Pemurnian, lemak tengkawang, sifat fisiko kimia