KAJIAN KANDUNGAN DAN MANFAAT DARI LIMBAH BUAH KELAPA SAWIT (*Elaeis guineensis* Jacq.)

SKRIPSI

DHIA LARISSA
A183008

SEKOLAH TINGGI FARMASI INDONESIA
YAYASAN HAZANAH
BANDUNG
2020

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Sebagai salah satu syarat untuk memperoleh gelar Sarjana Farmasi

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Disetujui oleh:

Pembimbing	Pembimbing
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Skripsi ini dipersembahkan untuk orang tua, adik-adikku, keluarga dan orang-orang yang selalu menyayangi, mendukung dan mendo'akan saya.

ABSTRAK

Kelapa sawit (*Elaeis guineensis* Jacq) termasuk dalam famili *Arecaceae* yang berasal dari Afrika Barat. Kelapa sawit dapat ditanam di daerah tropis Asia, Afrika, serta Amerika Tengah dan Selatan. Kelapa sawit menghasilkan dua jenis minyak: minyak kelapa sawit (CPO) dan minyak inti kelapa sawit (PKO). Produksi CPO Indonesia mencapai mencapai 49 juta ton pada tahun 2020. Produksi tersebut akan menghasilkan limbah sekitar 35-40%. *Fresh Fruit Bunch* (FFB) diekstraksi menjadi CPO dan PKO yang menghasilkan limbah berupa *Palm Oil Mill Effluent* (POME), *Empty Fruit Bunch* (EFB), *Mesocarp Fiber* (MF), *Palm Kernel Shell* (PKS) dan *Palm Kernel Meal* (PKM). Produksi minyak kelapa sawit terus meningkat setiap tahun yang akan menyebabkan jumlah limbah dari industri tersebut juga akan terus meningkat. Penelusuran pustaka pada kajian ini dilakukan secara online di Google Cendekia dan PubMed dengan meninjau literatur dari jurnal dan laporan penelitian domestik maupun internasional. Hasil penelusuran pustaka ini didapatkan bahwa setiap limbah mengandung kandungan yang masih bisa dimanfaatkan seperti protein, serat, karotenoid dan karbohidrat seperti: selulosa, hemiselulosa, arabinosa, dan mannosa. Beberapa limbah ini juga banyak dimanfaatkan untuk altenatif bahan bakar, sumber karoten, substrat produksi bioplastik, adsorben logam, menghasilkan kertas, pakan ternak dan sebagai pembawa alternatif di sediaan emulsi dan kosmetik. Dari berbagai limbah, *Mesocarp Fiber* merupakan limbah yang memiliki banyak kandungan dan bisa dimanfaatkan untuk bahan baku farmasi.

Kata kunci: Limbah Kelapa Sawit, Kandungan, Manfaat

ABSTRACT

Oil palm (Elaeis guineensis Jacq) is a part of the family of Arecaceae which originated from West Africa. Oil palm can be grown in the tropics of Asia, Africa, and Central and South America. Palm oil produces two types of oil: Crude Palm Oil (CPO) and Palm Kernel Oil (PKO). Indonesia's CPO production reaches 49 million tonnes in 2020. This production produces around 35-40% of waste. Fresh Fruit Bunch (FFB) is extracted into Crude Palm Oil (CPO) and Palm Kernel Oil (PKO) which produce waste such as Palm Oil Mill Effluent (POME), Empty Fruit Bunch (EFB), Mesocarp Fiber (MF), Palm Kernel Shell (PKS) and Palm Kernel Meal (PKM). Palm oil production increases every year which causes the waste from the industry to increase too. The study was conducted online at Google Scholar and PubMed by reviewing literature from the domestic and international journal and research reports. The results of the study found that each waste contained content that could still be utilized, such as protein, fiber, carotenoids and carbohydrates such as: cellulose, hemicellulose, arabinose, and mannose. Some of these wastes are also widely used for alternative fuels, carotene sources, bioplastic production substrates, metal adsorbents, paper production, animal feed and as alternative carriers in emulsion and cosmetic preparations. From various wastes, Mesocarp Fiber is waste that has a lot of content and can be used for pharmaceutical raw materials

Keyword: *Palm Oil Waste, Contents, Utilization*

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Penelitian dan penulisan skripsi ini dilakukan untuk memenuhi salah satu syarat untuk mendapatkan gelar sarjana pada jurusan Farmasi Sekolah Tinggi Farmasi Indonesia.

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