

**PENGARUH *PRETREATMENT* FERMENTASI DAN  
NONFERMENTASI PADA PENGOLAHAN KAKAO  
(*Theobroma cacao* L.) TERHADAP KARAKTERISTIK LEMAK  
KAKAO**

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KARAKTERISTIK LEMAK KAKAO**

Novia Andriani<sup>1</sup>, Rina Yenrina<sup>2</sup>, Novizar Nazir<sup>2</sup>

**ABSTRAK**

Penelitian ini bertujuan untuk mengetahui pengaruh *pretreatment* fermentasi dan nonfermentasi pada pengolahan kakao (*Theobroma cacao* L.) terhadap sifat fisik, sifat kimia, profil asam lemak dan sifat sensori. Penelitian ini dilakukan menggunakan metoda eksperimental dengan dua perlakuan dan tiga ulangan. Analisis mutu lemak kakao dilakukan melalui analisis rendemen, warna, kadar air, asam lemak bebas, bilangan iod, bilangan peroksida, bilangan penyabunan berdasarkan SNI 3748:2009, penentuan profil asam lemak menggunakan GC-MS, serta analisis sifat sensori. Hasil analisis lemak kakao pengaruh *pretreatment* fermentasi dan nonfermentasi bervariasi. Analisis rendemen antara 20.82-21.00%. warna lemak kakao *pretreatment* fermentasi memiliki nilai L\* 17.88, a\*8.70, dan b\*7.99 sedangkan untuk lemak kakao *pretreatment* nonfermentasi memiliki nilai L\* 14.88, a\* 8.96 dan b\* 6.78, kadar air antara 0.10-0.12%, asam lemak bebas antara 0.51-0.56%, bilangan iod antara 26.40-26.50 g I<sub>2</sub>/100g, bilangan peroksida antara 0.40-0.70 meq peroksida/kg lemak, bilangan penyabunan antara 190.23-191.40 mg KOH/g lemak. Melalui penentuan profil asam lemak menggunakan GC-MS, diperoleh penyusun asam lemak yang dominan terkandung dalam lemak kakao *pretreatment* fermentasi dan nonfermentasi adalah asam oleat (29.39-29.57%), asam heptadekanoat (25.85-26.77%), dan asam palmitat (21.49-21.83%). Berdasarkan analisis sensori lemak kakao dengan perlakuan *pretreatment* fermentasi lebih disukai rasa, warna dan aroma.

Kata kunci : Kakao, *pretreatment*, fermentasi, nonfermentasi, karakteristik, lemak

**THE EFFECT OF PRETREATMENT FERMENTATION AND  
NONFERMENTATION ON THE PROCESSING OF COCOA (*Theobroma  
cacao* L.) CHARACTERISTICS OF COCOA FATS**

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**ABSTRACT**

This study aims to determine the effect of fermentation and non-fermentation pretreatment on cocoa (*Theobroma cacao* L.) processing on physical properties, chemical properties, fatty acid profiles and sensory properties. This research was conducted using an experimental method with two treatments and three replications. Fat quality analysis was carried out through analysis of yield, color, moisture content, free fatty acids, iodine number, peroxide number, saponification number based on SNI 3748: 2009, determination of fatty acid profile using GC-MS, and analysis of sensory properties. The results of the analysis of cocoa butter varied in the effects of fermentation and non-fermentation pretreatment. Yield analysis between 20.82-21.00%. color of fermented pretreatment cocoa butter has values of L \* 17.88, a \* 8.70, and b \* 7.99 while for non-fermented pretreatment cocoa butter has values of L \* 14.88, a \* 8.96 and b \* 6.78, moisture content between 0.10-0.12%, free fatty acids 0.51-0.56%, iodine number 26.40-26.50 g I<sub>2</sub> / 100g, peroxide number 0.40-0.70 meq peroxide / kg fat, soaping number 190.23-191.40 mg KOH / g fat. By determining the fat profile using GC-MS, the fatty acid constituents contained in fermented and non-fermented pretreatment cocoa butter are oleic acid (29.39-29.57%), heptadecanoic acid (25.85-26.77%), and palmitic acid (21.49-21.83%). . Based on the sensory analysis of cocoa butter with pretreatment, fermentation is deeper in taste, color and aroma.

Keywords : Cacao, pretreatment, fermentation, non fermentation, characteristic, fat