

THESIS

**FORMULATION OF SOLID SOAP YOGHURT WHEY WITH NATURAL
COLORANT OF LERAK FRUIT
(*Sapindus rarak* DC)**



Arranged By:

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UNIVERSITAS DARUSSALAM**

PONOROGO

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VALIDITY SHEET

It is hereby stated that the thesis with the title:

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ABSTRAK

FORMULASI SEDIAAN SABUN PADAT YOGHURT *WHEY* DENGAN PEWARNA ALAMI BUAH LERAK (*Sapindus rarak* DC)

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Kosmetik yang beredar sekarang memiliki bentuk yang menarik. Sabun padat merupakan kosmetik yang banyak digunakan saat ini. Untuk memberikan bentuk yang menarik, beberapa sabun padat diberi pewarna. Pewarna memiliki dua jenis yaitu pewarna alami dan pewarna sintetis. Beberapa pewarna sintetis memiliki kandungan yang berbahaya terhadap tubuh. Penelitian ini memiliki tujuan untuk mengetahui pengaruh warna alami pada buah lerak dan hasil evaluasi mutu fisik pada sabun padat yoghurt *whey*. Penelitian dengan metode eksperimental laboratorium menggunakan yoghurt *whey*, buah lerak, minyak kanola, minyak sawit, minyak zaitun, VCO dan NaOH pada pembuatan sediaan sabun padat. Perpaduan antara yoghurt *whey* dan ekstrak lerak memberikan warna coklat yang baik. Sabun padat yang telah menggeras dilakukan uji organoleptis, uji pH, uji tinggi busa, uji kadar air, uji total lemak, uji bahan tak larut etanol, uji alkali bebas, dan uji kadar klorida. Hasil yang didapat dianalisis menggunakan uji normalitas shapiro wilk lalu dilanjutkan dengan uji one way ANOVA metode duncan apabila hasil menyatakan data normal. Sediaan sabun padat yoghurt *whey* memenuhi standar SNI kecuali pada uji total lemak. Pada uji ini variasi kandungan yoghurt *whey* memiliki pengaruh pada hasil uji. *Whey* mengandung gula yang tinggi sehingga membuat hasil total lemak mengalami penurunan hasil. Gula yang terdapat pada yoghurt *whey* juga mempengaruhi pada tampilan warna pada sabun padat. Sabun padat yang memiliki warna paling stabil pada penelitian ini adalah F1 dengan kandungan yoghurt *whey* 100% susu sapi segar dan 0% *whey*.

Kata Kunci : sabun padat, yoghurt *whey*, pewarna alami, ekstrak buah lerak

ABSTRACT
**FORMULATION OF SOLID SOAP YOGHURT *WHEY* WITH NATURAL
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The cosmetics available today have attractive forms. Solid soap is a cosmetic that is widely used nowadays. To give it an appealing shape, some solid soaps are colored. There are two types of coloring agents there are natural and synthetic. Some synthetic dyes contain substances that are harmful to the body. This study aims to determine the effect of natural color from lerak fruit and evaluate the physical quality of yogurt *whey* solid soap. The research was conducted using a laboratory experimental method with yoghurt *whey*, lerak fruit, canola oil, palm oil, olive oil, VCO, NaOH, and essential oil to prepare of solid soap. The combination of yogurt *whey* and lerak fruit extract results in a good brown color. The hardened solid soap underwent organoleptic test, pH testing, foam height testing, moisture content testing, total fat testing, ethanol insoluble matter testing, free alkali testing, and chloride content testing. The results were analyzed using the shapiro wilk normality test, followed by one way ANOVA with Duncan's method if the data were normally distributed. The yogurt *whey* solid soap formulation met the SNI standards except for the total fat test. In this test, variations in the yogurt *whey* content affected the results. *Whey* contains high sugar, which led to a decrease in the total fat results. The sugar in yogurt *whey* also influenced the color appearance of the solid soap. The solid soap with the most stable color in this study was F1, which contained 100% fresh cow's milk and 0% *whey*.

Kata Kunci : yogurt *whey*, soapnut, extraction

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