

**PENGARUH PENAMBAHAN MINYAK SERAI WANGI
(*Cymbopogon nardus*) TERHADAP KARAKTERISTIK SABUN
PADAT DARI MINYAK KELAPA MURNI (*Virgin Coconut Oil*)**

NOVELIA SANDRA

1511121047



Pembimbing I : Neswati, S.TP, M.Si

Pembimbing II : Prof. Dr. rer nat Ir. Anwar Kasim

**FAKULTAS TEKNOLOGI PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2020**

Pengaruh Penambahan Minyak Serai Wangi (*Cymbopogon nardus*) Terhadap Karakteristik Sabun Padat dari Minyak Kelapa Murni (*Virgin Coconut Oil*)

Novelia Sandra, Neswati, Anwar Kasim

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan minyak serai terhadap karakteristik sabun yang diproduksi dan menentukan persentase penambahan terbaik dari minyak serai. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) yang terdiri dari 5 perlakuan dan 3 ulangan. Data dianalisis secara statistik menggunakan ANOVA dan dilanjutkan dengan Duncan's New Multiple Range Test (DNMRT) pada tingkat signifikansi 5%. Perlakuan dalam penelitian ini adalah penambahan minyak serai sebesar 2,5%, 3%, 3,5%, 4%, dan 4,5%. Pengamatan yang dilakukan pada produk sabun padat yang dihasilkan adalah uji organoleptik, uji iritasi, uji antimikroba, uji kekerasan secara kuantitatif, uji stabilitas busa secara kuantitatif dan uji sifat kimia yang meliputi kadar air, pH, kadar lemak tak tersabunkan dan asam lemak bebas. Hasil penelitian menunjukkan bahwa perbedaan persentase penambahan minyak serai wangi pada sabun berpengaruh terhadap antimikroba tetapi tidak berpengaruh terhadap kadar air, asam lemak bebas, kadar lemak tak tersabunkan, pH, kekerasan dan stabilitas busa. Pengaruh penambahan minyak serai dalam pembuatan sabun padat dari minyak kelapa murni pada konsentrasi minyak serai 4,5% merupakan produk terbaik dengan hasil uji organoleptik rata-rata adalah warna 3,93, aroma 4, kekerasan 3,86 dan 3,93 untuk stabilitas busa. Hasil analisis kimia produk dengan penambahan 4,5% minyak serai yaitu 14,22% kadar air, 0,5% kadar lemak tak tersabunkan, kadar asam lemak bebas 0,50%, nilai pH 9,83, kekerasan kuantitatif 2,86 N/cm², kuantitatif stabilitas busa 85,69%, nilai uji iritasi 0 (tanpa iritasi), dan pertumbuhan daya hambat bakteri *Stapylococcus aureus* dengan zona bening 23,33 mm.

Kata kunci; Minyak kelapa murni, minyak serai, sabun padat

The Effect of Citronella Oil (*Cymbopogon nardus*) addition on the characteristics of solid soap of Virgin Coconut Oil

Novelia Sandra, Neswati, Anwar Kasim

ABSTRACT

This study aims to determine the effect on the addition of Citronella Oil towards the characteristic of soap and in order to define the best addition of Citronella Oil percentage in the production processes. This study uses a completely randomized design (CRD) consisting of 5 treatments and 3 replications. The data were analyzed statistically using ANOVA and followed by Duncan's New Multiple Range Test (DNMRT) at a significance level of 5%. The treatment in this study was the addition of citronella oil by 2.5%, 3%, 3.5%, 4%, 4.5%. Observations on the resulting solid soap products are organoleptic tests, irritation tests, antimicrobial tests, quantitative hardness tests, quantitative foam stability tests and chemical properties including water content, pH, non-soapy fat content and free fatty acids. The results showed that the difference in the percentage of citronella oil addition to VCO soap affected antimicrobials but did not affect water content, free fatty acids, unsaturated fat levels, pH, hardness and foam stability. The effect of the addition of lemongrass oil in the production of solid soap from coconut oil at the concentration of 4.5% Citronella oil, is the best product with the average organoleptic results which are color 3.93, scent 4, hardness 3.86 and 3.93 for foam stability. The results of the chemical analysis on the product with the addition of 4.5% lemongrass oil are 14.22% of water content, 0.5% of unsaturated fat content, free fatty acid content 0.50%, pH value 9.83, quantitative hardness 2.86 N/cm², quantitative foam stability 85.69%, irritation test value 0 (without irritation), and growth inhibition of *Staphylococcus aureus* bacteria with clear zone 23.33 mm.

Keywords: Citronella Oil, Solid Soap, Virgin Coconut Oil

