

Pengaruh Perlakuan Enzimatis dari Sari Buah Nanas (*Ananas comosus*) dan Lama Inkubasi Terhadap Rendemen dan Karakteristik Virgin Coconut Oil (VCO)

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Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh interaksi perbedaan konsentrasi sari buah nanas dan lama inkubasi terhadap rendemen dan karakteristik *Virgin Coconut Oil* (VCO). Menentukan konsentrasi sari buah nanas dan lama inkubasi yang menghasilkan rendemen dan karakteristik *Virgin Coconut Oil* (VCO) terbaik. VCO yang dihasilkan akan disesuaikan dengan SNI 7381 : 2008 dan *Asian Pacific Coconut Community* (APCC). Penelitian ini menggunakan Rancang Acak Lengkap (RAL) Faktorial yang terdiri dari 2 faktor yaitu, pertama (F1) konsentrasi sari buah nanas dengan 3 level, kedua (F2) lama inkubasi dengan 2 level, masing-masing level 3 kali ulangan. Analisis data secara statistika dengan uji F dan dilanjutkan uji DNMRT pada taraf nyata 5%. Parameter yang diamati yaitu rendemen, nilai indeks bias, berat jenis, warna, kadar air, asam lemak bebas, bilangan peroksida dan bilangan iod. Dari hasil penelitian menunjukkan bahwa interaksi konsentrasi sari buah nanas dan lama inkubasi berpengaruh nyata terhadap rendemen, warna, kadar air, asam lemak bebas, bilangan peroksida dan bilangan iod. Namun tidak berpengaruh nyata terhadap indeks bias dan berat jenis. Hasil penelitian menunjukkan rendemen berkisar 14,77-34,13%, nilai indeks bias 1,455-1,471, berat jenis 0,9162-0,9199, whiteness index (WI) 36,00-86,99, kadar air 0,21-0,65%, asam lemak bebas 0,51-1,16%, bilangan peroksida 5,06-7,06 Mg ek/kg serta bilangan iod yang 4,56-7,08 giod/100g. Karakteristik VCO terbaik diperoleh pada perlakuan konsentrasi sari buah nanas 5% (A1) dan lama inkubasi 24 jam (B1) karena memiliki kadar air 0,21%, bilangan iod 4,56 g iod/100g memenuhi syarat SNI 7381 : 2008, berat jenis 0,9177, asam lemak bebas 0,51% dan bilangan peroksida 5,06 mg ek/kg memenuhi standar APCC.

Kata Kunci : Sari buah nanas (*Ananas comosus*), inkubasi, VCO

The Effect of Enzymatic Method of Pineapple Extract and Incubation Time on the Yield and Characteristics of Virgin Coconut Oil (VCO)

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ABSTRACT

This research aimed to determine the interaction effect of different concentrations pineapple extract and incubation time on the yield and characteristics of virgin coconut oil (VCO) and concentration of pineapple extract and incubation time produced and the best yield and characteristics of virgin coconut oil (VCO). All of the VCO produced conformed physicochemically to the standards established by SNI 7381 : 2008 and Asian Pacific Coconut Community (APCC). This research used completely randomized factorial design (CRFD) with 2 factors of (F1) concentration pineapple extract with 3 levels, (F2) incubation time with 2 levels, each level 3 replications. Data were analyzed statistically used F test and continued by Duncan's New Multiple Range Test (DNCRT) at 5%. Parameters measured were yield, refractive index, density, color, water content, free fatty acid (FFA), peroxide and iodine value. The results showed that the interaction of concentration of pineapple extract and incubation time had a significant effect on yield, color, water content, free fatty acid (FFA), peroxide and iodine value, but had no significant effect on refractive index and density. The results showed yield range of 14.77-34.13%, refractive index of 1.455-1.471, density of 0.9162-0.9199, whiteness index (WI) of 36.00-86.99, water content of 0.21-0.65%, free fatty acid (FFA) of 0.51-1.16%, peroxide value of 5,06-7,06 mg ek/kg and iodine value of 4.56-7.08 g iod/100g. The best characteristic of VCO was concentration of pineapple extract of 5% (A1) and incubation time of 24 hours (B1), because water content of 0.21%, iodine value of 4.56 g iod/100g conformed with SNI 7381 : 2008, density of 0.9177, FFA of 0.51% and peroxide value of 5,06 mg ek/kg conformed with standards APCC.

Keywords: Pineapple (*Ananas comosus*) extract , incubation, VCO.