

PENGARUH KONSENTRASI RAGI TERHADAP KARAKTERISTIK VIRGIN COCONUT OIL (VCO) YANG DIHASILKAN

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Abstrak

VCO yang berkualitas adalah yang beraroma khas kelapa, tidak berbau tengik, secara fisik tampak jernih dan berwarna transparan. Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi ragi terhadap karakteristik (sifat fisik, kimia) *Virgin Coconut Oil* (VCO), untuk mengetahui perlakuan VCO terbaik berdasarkan uji organoleptik dan analisis *break event point* (BEP) pada pembuatan VCO dengan metode fermentasi. Rancangan penelitian yang digunakan dalam penelitian adalah Rancangan Acak Lengkap (RAL) dengan perbandingan persentase penggunaan ragi roti yaitu A = 0,5%, B = 1%, C = 1,5%, D = 2%, E = 2,5% dengan 3 kali ulangan. Hasil pengamatan dari masing-masing perlakuan dianalisis dengan ANOVA, jika berbeda nyata maka dilanjutkan menggunakan uji lanjut *Duncan's New Multiple Range Test* (DMRT) pada taraf 5%. Hasil penelitian menunjukkan bahwa perbandingan persentase ragi roti memberikan pengaruh nyata terhadap rendemen, bilangan iod, bilangan peroksida, asam lemak bebas, dan angka lempeng total dan tidak berpengaruh nyata pada kadar air. Hasil pengujian terhadap VCO didapatkan rendemen 18,00 - 20,33%, Kadar air 0,00 - 0,07%, Bilangan iod 4,44 - 4,87 gr iod/100gr, Bilangan peroksida 1,26-1,93 mg ek/gr, Asam lemak bebas 0,28 - 0,64%, dan ALT $110,00 \times 10^3$ - $286,66 \times 10^3$ Koloni/mL. Hasil uji organoleptik terhadap warna dengan rentang nilai 3,88 (sangat suka) - 4,24 (sangat suka) dengan perlakuan yang paling disukai perlakuan A (konsentrasi ragi 0,5%), uji organoleptik terhadap aroma dengan rentang nilai 3,6 (suka) - 3,02 (suka) dengan perlakuan yang paling disukai perlakuan A (konsentrasi ragi 0,5%). Hasil perhitungan *Break Event Point* (BEP) usaha VCO dengan metode fermentasi atas dasar unit 79,9 unit dan *Break Event Point* (BEP) atas dasar rupiah Rp 1.912.549,01.

Kata kunci: Fermentasi, Ragi Roti, VCO

EFFECT OF YEAST CONCENTRATION ON CHARACTERISTICS VIRGIN COCONUT OIL (VCO) THAT IS PRODUCED

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Abstract

Quality VCO is one that has a distinctive coconut aroma, does not have a rancid smell, is physically clear and has a transparent color. This research aims to determine the effect of yeast concentration on characteristics (physical, chemical properties) Virgin Coconut Oil (VCO), to find out the best VCO treatment based on organoleptic tests and analysis break event point (BEP) in making VCO using the fermentation method. The research design used in the research was a Completely Randomized Design (CRD) with a comparison of the percentage of bread yeast used, namely A = 0.5%, B = 1%, C = 1.5%, D = 2%, E = 2.5% with 3 repetitions. The observation results from each treatment were analyzed using ANOVA, if they were significantly different then continued using further tests *Duncan's New Multiple Range Test (DMRT)* at the 5% level. The research results showed that the percentage ratio of baker's yeast had a real influence on yield, iodine number, peroxide number, free fatty acids, and total plate number and had no real effect on water content. The test results on VCO showed that the yield was 18.00 - 20.33%, water content 0.00 - 0.07%, iodine value 4.44 - 4.87 gr iodine/100gr, peroxide value 1.26-1.93 mg ek/gr, free fatty acids 0.28-0.64%, and ALT 110.00×10^3 - 286.66×10^3 colonies/mL. The results of the organoleptic test on color ranged from 3.88 (like very much) to 4.24 (liked very much) with the most preferred treatment being treatment A (yeast concentration 0.5%), the organoleptic test on aroma with a value range of 3.6 (like) - 3.02 (like) with the most preferred treatment being treatment A (yeast concentration 0.5%). The calculation results Break Event Point (BEP) VCO business with fermentation method on a unit basis of 79.9 units and Break Event Point (BEP) on the basis of rupiah IDR 1,912,549.01.

Keywords: Fermentation, Bread Yeast, VCO