

**PEMBUATAN *VIRGIN COCONUT OIL (VCO)* MELALUI
KOMBINASI TEKNIK FERMENTASI DAN ENZIMATIS
MENGUNAKAN GETAH PEPAYA**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui rendemen *Virgin Coconut Oil (VCO)* yang dibuat melalui kombinasi teknik fermentasi dan enzimatis menggunakan getah pepaya. Getah pepaya sebelumnya diolah menjadi enzim papain kasar dan fermentasi menggunakan ragi tempe (*Rhizopus oligosporus*). Konsentrasi santan kelapa 100 mL ditambahkan 0,5 gram ragi tempe dan enzim papain kasar dengan variasi 0,0 gram; 0,2 gram; 0,4 gram; 0,6 gram; 0,8 gram dan dengan variasi pH 3,4 dan 5. Campuran ini diinkubasi selama 24 jam pada suhu kamar. Dari 100 mL santan diperoleh rendemen optimum *Virgin Coconut Oil (VCO)* sebanyak 27,8 mL yaitu pada konsentrasi enzim papain kasar sebanyak 0,6 gram pada pH 5. Penambahan enzim papain kasar mampu menaikkan rendemen *Virgin Coconut Oil (VCO)* namun pada konsentrasi tertentu akan dapat menurunkan rendemen. Semakin rendah pH maka semakin rendah pula rendemen *Virgin Coconut Oil (VCO)* yang diperoleh. Analisis mutu *Virgin Coconut Oil (VCO)* dari segi asam lemak bebas 0,1720 %, kadar air 0,18 % dan bilangan iodin 9,45 mg/g. *Virgin Coconut Oil (VCO)* yang diperoleh berkualitas baik sesuai SNI.

Kata kunci: *Virgin Coconut Oil (VCO)*, Getah Pepaya, Ragi Tempe

**MAKING OF *VIRGIN COCONUT OIL (VCO)* THROUGH COMBINATION
OF FERMENTATION AND ENZYMATIC TECHNIQUES
USING PAPAYA LATEX**

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ABSTRACT

This study aims to determine the yield of *Virgin Coconut Oil (VCO)* is made through a combination of fermentation and enzymatic techniques using papaya latex. Previous papaya sap is processed into crude papain enzyme and fermentation using yeast tempeh (*Rhizopus oligosporus*). Concentration of 100 ml coconut milk is added 0.5 grams of tempeh and coarse with variation of the enzyme papain 0.0 grams; 0.2 grams; 0.4 grams; 0.6 grams; 0.8 grams and with a pH of 3.4 and 5 variations of this mixture was incubated for 24 hours at room temperature. Of 100 mL of milk obtained optimum yield *Virgin Coconut Oil (VCO)* of 27.8 mL of the enzyme at a concentration of as much as 0.6 grams of crude papain at pH 5. addition of the enzyme papain is able to increase the yield of coarse *Virgin Coconut Oil (VCO)*, but at a certain concentration will be able to lower the yield. The lower the pH, the lower the yield of *Virgin Coconut Oil (VCO)* is obtained. Analysis of the quality of *Virgin Coconut Oil (VCO)* in terms of free fatty acid 0.1720%, 0.18% and a water content of 9.45 mg iodine / g. *Virgin Coconut Oil (VCO)* obtained good quality in accordance with SNI.

Keywords: *Virgin Coconut Oil (VCO)*, Papaya Latex, Yeast Tempe