

## ABSTRAK

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### **KARAKTERISASI RAGI “BIOFERM AROMATIC WINE” DAN RAGI “BIOFERM CHAMP WINE” DALAM PEMBUATAN MINUMAN FERMENTASI KULIT ROTI TAWAR**

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(xviii + 69 halaman, 23 tabel, 4 gambar, 26 lampiran)

Jenis mikroorganisme yang berbeda dan waktu fermentasi akan mempengaruhi minuman fermentasi yang dihasilkan. Setiap mikroorganisme memiliki ciri khas yang berbeda. Pada penelitian ini digunakan dua jenis ragi, yaitu ragi “Bioferm Aromatic Wine” yang mengandung campuran *strain Saccharomyces cerevisiae* dan ragi “Bioferm Champ Wine” yang mengandung campuran *strain Saccharomyces bayanus*. Tujuan penelitian ini adalah untuk mengetahui karakteristik minuman fermentasi kulit roti tawar yang dihasilkan menggunakan ragi “Bioferm Aromatic Wine” dan ragi “Bioferm Champ Wine” yang dipengaruhi oleh jenis kulit roti dan lama fermentasi. Tingkat pemanggangan kulit roti selama 70 menit (gosong) menggunakan ragi “Bioferm Aromatic Wine” dengan lama fermentasi 8 hari menghasilkan formulasi terbaik terhadap karakteristik fisikokimia, yaitu kejernihan sebesar 0,103A, pH 2,82, total asam tertitrasi 0,771%, total padatan terlarut 13,30°Brix, total gula reduksi 0,527%, kadar alkohol 3,000 %ABV, total fenolik 301,844 mgGAE/mL, total flavonoid 16,790 mgQE/mL, dan organoleptik minuman fermentasi. Minuman fermentasi kulit roti tawar disukai oleh panelis dengan nilai secara keseluruhan 4,24-4,72 yang berarti kesukaan panelis terhadap minuman fermentasi dari seluruh parameter adalah netral hingga cenderung agak suka. Minuman fermentasi terpilih adalah minuman fermentasi kulit roti gosong menggunakan ragi “Bioferm Aromatic Wine” dengan lama fermentasi 8 hari yang memiliki nilai hedonik  $4,68 \pm 1,49$  dengan karakteristik beraroma alkohol, agak tidak berasa manis, dan memiliki rasa asam yang seimbang.

Kata kunci: minuman fermentasi, ragi, *Saccharomyces cerevisiae*, *Saccharomyces bayanus*

Referensi: 62 (1995-2018)

## **ABSTRACT**

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### **CHARACTERIZATION OF “BIOFERM AROMATIC WINE” YEAST AND “BIOFERM CHAMP WINE” YEAST IN THE MAKING OF FERMENTED BEVERAGES FROM WHITE BREAD CRUST**

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*(xviii + 69 pages, 23 tables, 4 figures, 26 appendices)*

*Types of different microorganisms and fermenting time will affect the fermented beverages. Every microorganism has its special characteristics. In this research, two types of yeasts were used, “Bioferm Aromatic Wine” yeast which contain a mixture of strain Saccharomyces cerevisiae and “Bioferm Champ Wine” yeast which contain a mixture of strain Saccharomyces bayanus. The aim of this research was to determine the characteristics of fermented beverages made from white bread crust waste by using “Bioferm Aromatic Wine” yeast and “Bioferm Champ Wine” yeast affected by types of bread crust and fermenting time. Bread crust which was burned for 70 minutes (burned) with “Bioferm Aromatic Wine” yeast fermented for 8 days was chosen as the best formulation based on its physicochemical characteristics, which its clarity was 0,103A, pH 2,82, total titratable acidity 0,771%, total soluble solid 13,30°Brix, total reducing sugar 0,527%, alcohol content 3,000 %ABV, total phenolic 301,844 mgGAE/mL, total flavonoid 16,790 mgQE/mL, and its sensory. Overall, the panelist’s likeness score is 4,24-4,72 which means panelist likeness towards these fermented beverages for all parameters is neutral up to tend to slightly like. The chosen fermented beverage was made from burned white bread crust with “Bioferm Aromatic Wine” yeast and fermented for 8 days, which its hedonic score was  $4,68 \pm 1,49$  with the characteristics of alcohol flavor, a little not sweet, and slightly sour.*

*Keywords: fermented beverages, yeast, Saccharomyces cerevisiae, Saccharomyces bayanus*

*References: 62 (1995-2018)*