ABSTRACT

THE EFFECT OF MOSACCHA TEMPE YEAST CONCENTRATIONS CONTAINING *Saccharomyces cerevisiae* ON NUTRITIONAL AND BETA-GLUCAN CONTENT OF TEMPE GEMBUS

By

DEFINA ZULFA

This study aims to determine the effect of mosaccha tempeh yeast concentration on the nutritional content of gembus tempeh and determine the best concentration of mosaccha tempeh yeast containing beta-glucan. This study was structured using a single factor Complete Randomized Block Design (RAKL) (inoculum concentration) with 7 levels, 0% (K0), 0.1% (K1), 0.2% (K2), 0.3% (K3), 0.4% (K4), 0.5% (K5), and control using 0.2% Raprima yeast. Each treatment was repeated 4 times. Observation parameters include protein content, water content, ash content, fat content, carbohydrate content and crude fiber content. The data obtained were tested for equality of variance using the Bartlett test and additional data was tested using the Tuckey test. The data was then analyzed for variance and tested further with the Least Significant Difference (LSD) test at a level of 5%. The selection of the best treatment uses the De Garmo method based on the results of testing the levels of protein, crude fiber, water and fat, and then testing the levels of beta-glucan. The results of the study showed that the best treatment was the addition of 0.3% concentration of mosaccha tempe yeast to produce gembus tempeh with a protein content of 8.75%, water 84.55%, ash 0.45%, fat 0.39%, carbohydrates 5.86%, crude fiber 4.36%, and beta-glucan 0.62%.

Keywords: Gembus tempeh, Saccharomyces cerevisiae, mosaccha tempeh yeast, nutritional content of tempeh, and Beta-glucan.

ABSTRAK

**PENGARUH KONSENTRASI RAGI TEMPE MOSACCHA YANG
MENGANDUNG *Saccharomyces cerevisiae* TERHADAP
KANDUNGAN GIZI DAN BETA-GLUKAN TEMPE GEMBUS**

Oleh

DEFINA ZULFA

Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi ragi tempe mosaccha terhadap kandungan gizi tempe gembus dan mengetahui konsentrasi ragi tempe mosaccha terbaik yang mengandung beta-glukan. Penelitian ini disusun menggunakan Rancangan Acak Kelompok Lengkap (RAKL) faktor Tunggal (konsentrasi inokulum) dengan 7 taraf, 0% (K_0), 0,1% (K_1), 0,2% (K_2), 0,3% (K_3), 0,4% (K_4), 0,5% (K_5), dan kontrol menggunakan ragi Raprima 0,2%. Setiap perlakuan diulang sebanyak 4 kali. Parameter pengamatan meliputi kadar protein, kadar air, kadar abu, kadar lemak, kadar karbohidrat, dan kadar serat kasar. Data yang diperoleh diuji kesamaan ragamnya dengan uji Bartlett dan kemenambahan data diuji dengan uji tuckey. Data kemudian dianalisis sidik ragam dan diuji lanjut dengan uji Beda Nyata Terkecil (BNT) dengan taraf 5%. Pemilihan perlakuan terbaik menggunakan metode De Garmo berdasarkan hasil dari uji kadar protein, serat kasar, air, dan lemak, untuk selanjutnya diuji kadar beta-glukan. Hasil penelitian menunjukkan bahwa perlakuan terbaik adalah dengan penambahan konsentrasi ragi tempe mosaccha 0,3% menghasilkan tempe gembus dengan kadar protein sebesar 8,75%, air 84,55%, abu 0,45%, lemak 0,39%, karbohidrat 5,86%, serat kasar 4,36%, dan beta-glukan sebesar 0,62%.

Kata kunci : Tempe gembus, *Saccharomyces cerevisiae*, Ragi tempe mosaccha, kandungan gizi tempe, dan Beta-glukan.