

ABSTRACT

FORMULATION OF JACK BEANS (*Canavalia ensiformis*) AND SOYBEANS (*Glycine max L.*) ON TOTAL MOLDS, TOTAL YEASTS, AND SENSORY PROPERTIES OF MOSACCHA TEMPEH

By

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The level of local legume consumption in Indonesia is low. One way to increase it is through food diversification by creating modified tempeh from non-soybeans. Jack bean can be used as an additional raw material in soy tempeh production because it has a nutritional content almost comparable to soybeans. This research aims to determine the formulation of jack beans and soybeans with the addition of the best variation of mosaccha tempeh yeast concentration. The research consists of two factors: the first factor is the formulation ratio of jack beans to soybeans (K), which includes 0%:100% (K1), 25%:75% (K2), 50%:50% (K3), 75%:25% (K4), and 100%:0% (K5) by weight; the second factor is the concentration of mosaccha tempeh yeast (R), which includes 0.2% (R1), 0.4% (R2), and raprima yeast (control) at 0.2% (R3) by weight. The observation parameters are total mold, total yeast, sensory properties (color, aroma, texture, taste, and overall acceptance), beta-glucan content, protein content, fat content, moisture content, ash content, crude fiber content, and carbohydrate content. The results show that the best treatment was 75% jack beans and 25% soybeans with the addition of 0.4% mosaccha yeast (K4R2), based on effectiveness index results with total mold count of 6.93 Log CFU/g; total yeast count of 8.76 Log CFU/g; color score of 4 (white with mycelium covering almost the entire surface of the tempeh); aroma score of 4 (distinct tempeh smell, slightly rancid, sweet); texture score of 4 (compact, easy to slice); taste score of 4 (liked); overall acceptance score of 3 (somewhat liked); beta-glucan content of 0.941%; protein content of 33.31%; fat content of 8.66%; moisture content of 68.74%; ash content of 1.52%; crude fiber content of 2.09%; and carbohydrate content of 14.72%.

Keywords: jack beans, mosaccha yeast, soybeans, tempeh

ABSTRAK

FORMULASI KACANG KORO PEDANG (*Canavalia ensiformis*) DAN KACANG KEDELAI (*Glycine max L.*) TERHADAP TOTAL KAPANG, TOTAL KHAMIR, DAN SIFAT SENSORI TEMPE MOSACCHA

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Tingkat konsumsi kacang-kacangan lokal di Indonesia rendah. Salah satu cara untuk meningkatkannya adalah diversifikasi pangan dengan cara membuat tempe modifikasi dari kacang non-kedelai. Kacang koro pedang dapat digunakan sebagai bahan baku tambahan dalam pembuatan tempe kedelai karena memiliki kandungan gizi yang hampir sama dengan kacang kedelai. Penelitian ini bertujuan untuk mengetahui formulasi kacang koro pedang dan kacang kedelai dengan penambahan variasi konsentrasi ragi tempe mosaccha terbaik. Penelitian terdiri dari dua faktor, faktor pertama adalah formulasi perbandingan kacang koro pedang dan kacang kedelai (K) yaitu 0%:100% (K₁), 25%:75% (K₂), 50%:50% (K₃), 75%:25% (K₄), 100%: 0% (K₅) b/b dan faktor kedua adalah konsentrasi ragi tempe mosaccha (R) yaitu 0,2% (R₁) dan 0,4% (R₂) serta ragi raprima (kontrol) 0,2% (R₃) b/b. Parameter pengamatan adalah total kapang, total khamir, sifat sensori (warna, aroma, tekstur, rasa, dan penerimaan keseluruhan), kadar beta-glukan, kadar protein, kadar lemak, kadar air, kadar abu, kadar serat kasar, dan kadar karbohidrat. Hasil penelitian menunjukkan bahwa perlakuan terbaik 75% koro pedang : 25% kedelai dengan penambahan ragi mosaccha 0,4% (K₄R₂) berdasarkan hasil indeks efektivitas dengan jumlah total kapang 6,93 Log CFU/g; jumlah total khamir 8,76 Log CFU/g; skor warna 4 (putih dan miselium menyelimuti hampir seluruh permukaan tempe); skor aroma 4 (khas tempe sedikit langu, harum manis); skor tekstur 4 (kompak, mudah diiris); skor rasa 4 (suka); skor penerimaan keseluruhan 3 (agak suka); kadar beta-glukan 0,941%; kadar protein 33,31%, kadar lemak 8,66%; kadar air 68,74%, kadar abu 1,52%; kadar serat kasar 2,09%; kadar karbohidrat 14,72%.

Kata kunci : kacang kedelai, kacang koro pedang, ragi mosaccha, tempe