PENGARUH PENAMBAHAN ASAM ASETAT DALAM PROSES PERENDAMAN KEDELAI TERHADAP PENURUNAN KADAR PURIN PADA TEMPE KEDELAI

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Skripsi

Sebagai Salah Satu Syarat Untuk Memperoleh

Gelar Sarjana Teknologi Pertanian

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Pengaruh Penambahan Asam Asetat Dalam Proses Perendaman Kedelai Terhadap Penurunan Kadar Purin Pada Tempe Kedelai

Winda Firma Mutiara, Hasbullah, Cesar Welya Refdi

ABSTRAK

Tempe adalah makanan yang dibuat dengan fermentasi kacang kedelai dengan ragi tempe.Tempe adalah salah satu makanan sumber purin dalam tubuh. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan asam asetat dalam proses perendaman kedelai terhadap penurunan kadar purin pada tempe kedelai. Penelitian dilakukan dengan 5 perlakuan yaitu penamabahan asam asetat 0%, 0,25%, 0,5%, 0,75% dan 1% dengan 3 ulangan. Penambahan asam asetat berpengaruh terhadap penurunan kadar purin pada tempe. Penambahan asam asetat 0% didapatkan total kadar purin 70,02 mg/100g (guanin 11,47 mg/100g, xanthin 28,15 mg/100g, hypoxanthin 30,40 mg/100g), 0,25% didapatkan total kadar purin 69,25 mg/100g (guanin 5,02 mg/100g, xanthin 31,36 mg/100g, hypoxanthin 32,87 mg/200g), 0,5% didapatkan total kadar purin 66,05 mg/100g (guanin 8,59 mg/100g, xanthin 25,08 mg/100g, hypoxanthin 32,38 mg/100g), 0,75% didapatkan total kadar purin 62,60 mg/100g (guanin 9,18 mg/100g, xanthin 29,09 mg/100g, hypoxanthin 24,32 mg/100g), dan 1% didapatkan total kadar purin 60,64 mg/100g (guanin 8,80 mg/100g, xanthin 22,76 mg/100g, hypoxanthin 29,07 mg/100g). Penambahan asam asetat berpengaruh nyata terhadap pH, kadar abu, kadar protein dan kadar karbohidrat. Hasil penelitian menunjukkan bahwa perlakuan terbaik adalah perlakuan C (penambahan asam asetat 0,5%) dengan nilai pH 4,95, kadar air 62,43%, kadar abu 0,86%, kadar protein 17,66%, kadar lemak 9,44%, kadar karbohidrat 9,60%, kadar serat kasar 1,88%, kadar purin 66,05%, ALT 1,3 X 10^7 CFU/g dan organolptik uji deskriptif dengan warna miselium putih, aroma khas tempe, after taste terasa dan normal, tekstur kompak, nilai organoleptik uji hedonik warna 4,05 (suka), aroma 3,80 (suka), rasa 3,70 (suka) dan tekstur 3,70 (suka).

Kata kunci – **Tempe, Asam Asetat, Purin**

The Effect of Adding Acetic Acid in the Process of Soaking Soybeans on Reducing Purine Levels in Soybean Tempeh

Winda Firma Mutiara, Hasbullah, Cesar Welya Refdi

ABSTRACT

Tempeh is a food made from soybeans through fermentation using tempeh yeast. Tempeh is one of purine sourced. This research aims to determine the effect of adding acetic acid in the soybean soaking process on reducing purine levels in soybean tempeh. The research was carried out with 5 treatments, namely the addition of 0%, 0.25%, 0.5%, 0.75% and 1% acetic acid with 3 repetitions. The addition of acetic acid had an effect on reducing purine levels in tempeh. The addition of 0% acetic acid obtained a total purine content of 70.02 mg/100g (guanine 11.47 mg/100g, xanthin 28.15 mg/100g, hypoxanthin 30.40 mg/100g), 0.25% obtained a total purine content of 69 .25 mg/100g (guanine 5.02 mg/100g, xanthin 31.36 mg/100g, hypoxanthin 32.87 mg/200g), 0.5% obtained a total purine content of 66.05 mg/100g (guanine 8.59 mg/100g, xanthin 25.08 mg/100g, hypoxanthin 32.38 mg/100g), 0.75% obtained a total purine content of 62.60 mg/100g (guanine 9.18 mg/100g, xanthin 29.09 mg/ 100g, hypoxanthin 24.32 mg/100g), and 1% obtained a total purine content of 60.64 mg/100g (guanine 8.80 mg/100g, xanthin 22.76 mg/100g, hypoxanthin 29.07 mg/100g).The addition of acetic acid has a significant effect on pH, ash content, protein content and carbohydrate content. The results showed that the best treatment was treatment C (addition of 0.5% acetic acid) with a pH 4.95, water content 62.43%, ash content 0.86%, protein content 17.66%, fat content 9, 44%, carbohydrate content 9.60%, crude fiber content 1.88%, purine content 66.05%, ALT 1.3 X 10^7 CFU/g ,organoleptic descriptive showed that tempeh had white mycelium, after taste was normal, firm texture, organoleptic hedonic color 4.05 (like), aroma 3.80 (like), taste 3.70 (like) and texture 3.70 (like).

Keyword – **Tempeh, Acetic Acid, Purine**