ABSTRAK

Minuman sari tempe merupakan minuman fungsional yang
terbuat dari bahan utama tempe, yang memiliki komposisi gizi yang baik untuk tubuh. Minuman sari tempe memiliki kekurangan yaitu memiliki aroma langu khas tempe dan tidak stabil selama penyimpanan, sehingga perlu dilakukan penambahan sari markisa ungu yang dapat membantu mengurangi aroma langu khas tempe dan penambahan penstabil CMC untuk mengurangi adanya pengendapan dan mempertahankan stabilitasnya. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan konsentrasi sari markisa ungu dan CMC terhadap mutu minuman sari tempe. Ditinjau dari uji fisik meliputi total padatan terlarut dan stabilitas. Uji kimia meliputi pH, kadar protein, dan kadar lemak. Uji Organoleptik meliputi kesukaan dan mutu. Uji penunjang meliputi aktivitas antioksidan, cemaran logam (Pb, Hg, As), Angka Lempeng Total (ALT), dan E.coli. Rancangan yang digunakan adalah Rancangan Acak Lengkap Faktorial (RAL Faktorial) dengan dua faktor yaitu konsentrasi sari markisa ungu (10%, 15%, dan 20%) dan CMC (0,10%, 0,15%, 0,20%, dan 0,25%) dengan dua kali ulangan. Hasil analisis ANAVA berbeda nyata ($p<0,05$) terhadap nilai stabilitas, protein, lemak, kesukaan (warna, aroma, rasa dan kekentalan), namun tidak berpengaruh nyata ($p>0,05$) terhadap total padatan terlarut, pH, dan mutu (warna, aroma, rasa, dan kekentalan). Mutu terbaik dihasilkan pada minuman sari tempe dengan sari markisa ungu 20% dan CMC 0,15% dengan hasil akhir nilai total padatan terlarut 9,37°brix, stabilitas 76,00%, pH 4,02, protein 0,29%, dan lemak 0,51%. Kesukaan pada atribut warna 5,00 (suka), aroma 5,13 (suka), rasa 5,00 (suka), dan kekentalan 4,87 (agak suka-suka), sedangkan mutu pada atribut warna 5,15 (kuning), aroma 5,00 (tidak langu), rasa 5,02 (asam), dan kekentalan 3,71 (agak kental). Hasil uji penunjang minuman sari tempe dengan sari markisa ungu 20% dan CMC 0,15% memiliki kandungan aktivitas antioksidan 50,68 ppm, cemaran logam negatif atau tidak terdapat logam berat Pb, Hg, As pada produk, cemaran mikroba E.coli 0 MPN/mL dan angka lempeng total 0 koloni/mL.

Kata Kunci: aroma langu, sari tempe, stabilitas

ABSTRACT

Tempeh juice drink is a functional drink made from the main ingredient tempeh, which has a good nutritional composition for the body. Tempeh juice drinks have the disadvantage of having a distinctive tempeh langu aroma and unstable during storage, so it is necessary to add purple passion fruit juice which can help reduce the distinctive langu aroma of tempeh and the addition of CMC stabilizers to reduce precipitation and maintain stability. This study aims to determine the effect of increasing the concentration of purple passion fruit juice and CMC on the quality of tempeh juice drinks. Physical tests include total dissolved solids and stability. Chemical tests include pH, protein content, and fat content. Organoleptic tests include liking and quality. Supporting tests include antioxidant activity, metal contamination (Pb, Hg, As), Total Plate Number (ALT), and E.coli. The design used was the Factorial Complete Randomized Design (RAL Factorial) with two factors, namely the concentration of purple passion fruit juice (10%, 15%, and 20%) and CMC (0.10%, 0.15%, 0.20%, and 0.25%) with two repeats. The results of ANAVA analysis differed markedly ($p<0.05$) on the value of stability, protein, fat, preference (color, aroma, taste and viscosity), but had no significant effect ($p>0.05$) on total dissolved solids, pH, and quality (color, aroma, taste, and viscosity). The best quality is produced in tempeh juice drinks with 20% purple passion fruit juice and 0.15% CMC with a final total dissolved solids value of 9.37°brix, stability 76.00%, pH 4.02, protein 0.29%, and fat 0.51%. Favorability in color attributes 5.00 (like), aroma 5.13 (like), taste 5.00 (like), and viscosity 4.87 (somewhat like), while quality in color attributes 5.15 (yellow), aroma 5.00 (not langu), taste 5.02 (sour), and viscosity 3.71 (slightly thick). The supporting test results of tempeh juice drinks with purple passion fruit juice 20% and CMC 0.15% have antioxidant activity content of 50.68 ppm, negative metal contamination or no

heavy metals Pb, Hg, As in the product, E.coli microbial contamination 0 MPN / mL and total plate number 0 colony / mL.

Keywords: aroma langu, stability, tempeh essence