

INTISARI

Penelitian ini bertujuan untuk mengetahui karakteristik fisik dan mikrostruktur sosis fermentasi daging sapi dengan substitusi tepung ampas sari kedelai. Sosis fermentasi dibuat dari daging sapi dengan penambahan 1,5% *Pediococcus pentosaceus* dan 3 level substitusi susu skim dengan tepung ampas sari kedelai (0%, 3%, dan 6%). Parameter yang diamati yaitu: karakteristik fisik (nilai pH, daya ikat air, dan keempukan) dan mikrostruktur sosis fermentasi daging sapi. Data karakteristik fisik dianalisis dengan analisis variansi Rancangan Acak Lengkap (RAL) pola searah, dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DMRT). Mikrostruktur dianalisis dengan analisis *descriptive* secara visual. Hasil penelitian menunjukkan substitusi tepung ampas sari kedelai berpengaruh nyata ($P < 0,01$) terhadap daya ikat air, tetapi perbedaan yang tidak nyata terhadap nilai pH dan keempukan. Hasil foto mikroskop menunjukkan perbedaan nyata pada mikrostruktur sosis fermentasi daging sapi antar level substitusi tepung ampas sari kedelai. Kesimpulan yang didapat dari penelitian ini yaitu substitusi tepung ampas sari kedelai sampai 6% dihasilkan nilai DIA tertinggi, namun tidak meningkatkan nilai pH dan keempukan sosis fermentasi daging sapi. Berdasarkan mikrostruktur dengan substitusi tepung ampas sari kedelai sebanyak 6% menghasilkan tingkat homogenitas paling baik.

Kata kunci: Daging sapi, Sosis fermentasi, Ampas sari kedelai, *Pediococcus pentosaceus*, Mikrostruktur.

ABSTRACT

The experiment was conducted to evaluate physical characteristics and microstructure of fermented beef sausage with extract soybean waste flour as substitution . Fermented sausage was made from beef meat which added with 1.5% *Pediococcus pentosaceus* and 3 levels of substitution of skim milk with extract soybean waste flour (0%, 3%, and 6%). The parameters observed were physical characteristics (pH value, water-holding capacity, and tenderness) and fermented beef sausage microstructure. The data of physical characteristics were analysed statistically using variance analysis of Completely Randomized Design (CRD) oneway analysis of variance, after the results were significantly different, then continued with the Duncan's New Multiple Range Test (DMRT). The microstructure characteristic was analyzed using visual descriptive. The result showed that substitution of extract soybean waste flour significantly affected ($P < 0.01$) on water-holding capacity, but didn't affect pH value and tenderness. The micrographic result showed that there was difference in the microstructure of fermented beef sausage among the levels of substitution of extract soybean waste flour. From this study it can be concluded that the substitution of extract soybean waste flour up to 6% produced the highest DIA value, but did not increase pH value and tenderness of fermented beef sausage. Based on the microstructure images, substitution with 6% of extract soybean waste flour, resulted as the best homogeneity.

Keywords: Beef, Sausage fermentation, Extract soybean waste flour, *Pediococcus pentosaceus*, Microstructure.