Intisari

PENGARUH KONSENTRASI TEPUNG KARAGENAN TERHADAP KARAKTERISTIK SURIMI LELE DUMBO

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Surimi dapat dibuat dari berbagai jenis ikan (ikan air tawar, air laut, air payau). Salah satu jenis ikan air tawar yang dapat digunakan sebagai bahan baku pembuatan surimi adalah lele dumbo. Pengolahan surimi dari bahan baku ikan air tawar masih perlu dikembangkan dengan penambahan salah satau jenis bahan tambahan pangan jenis hidrokoloid yaitu karagenan. Penelitian bertujuan untuk mengetahui besarnya rendemen, komposisi kimia proksimat daging lumat dan surimi serta pengaruh konsentrasi karagenan terhadap karakteristik sensoris, fisik dan kimia surimi lele dumbo. Penelitian ini menggunakan perlakuan konsentrasi karagenan 0,0% (sebagai kontrol); 0,5%; 1,0%; 1,5%; 2,0%; 2,5%; dan 3,0%. Rerata nilai rendemen, kadar air, abu, protein, lemak daging lumat lele dumbo berturut-turut: 36,61±0,11; 73,72±0,06 (wb); 1,49±0,22 (wb); 16,78±0,18 (wb); 5,63±0,18 (wb). Kisaran rerata nilai rendemen, kadar air, abu, protein, lemak, kenampakan, kekuatan lipat, kekuatan gigit, kekuatan gel, derajat putih, pH surimi lele dumbo berturut-turut: 19,26±2,09; 74,30% – 75,84%; 1,78% − 2,31% (wb); 12,64% − 14,67% (wb); 2,97% − 3,37% (wb); 9; 5 − 9; 7 − 9; 960,75 − 1182,96 gr/cm^2; 59,96 − 62,62%; 6,5 − 6,67. Hasil analisis statistik menunjukkan bahwa konsentrasi karagenan memberikan pengaruh signifikan terhadap nilai kekuatan lipat namun tidak dengan parameter kenampakan, kekuatan gigit, kekuatan gel, derajat putih, pH, kadar air, kadar protein, kadar abu, dan kadar lemak. Penambahan karagenan dengan konsentrasi 3% menghasilkan nilai kekuatan lipat terendah yaitu sebesar 5, akan tetapi tidak berbeda nyata dengan nilai kekuatan lipat dengan penambahan konsentrasi karagenan 2,5% yang menghasilkan nilai kekuatan lipat sebesar 6,3. Nilai kenampakan, kekuatan lipat, kekuatan gigit, kadar protein, dan kadar air perlakuan penambahan konsentrasi karagenan 0% (p0) – 3% (p6) telah memenuhi syarat mutu surimi SNI 2694:2013, kecuali pada parameter kekuatan lipat dengan perlakuan penambahan konsentrasi karagenan sebesar 2,5% (p5) dan 3% (p6) yang memiliki nilai 6,3 dan 5 dan belum memenuhi syarat mutu SNI 2694:2013 (minimal 7).

Kata kunci: fisik, karagenan, kimia, sensoris, surimi

Abstract

THE EFFECT OF CARRAGEENAN FLOUR CONCENTRATION ON THE CHARACTERISTICS OF AFRICAN CATFISH SURIMI

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Surimi can be made from various types of fish (freshwater fish, seawater, brackish water). One type of freshwater fish that can be used as raw material for making surimi is African catfish. Surimi processing from freshwater fish raw materials still needs to be developed with the addition of one type of hydrocolloid type of food additive, namely carrageenan. The aim of the study was to determine the yield, the proximate chemical composition of mashed meat and surimi and the effect of carrageenan concentration on the sensory, physical and chemical characteristic of African catfish surimi. This study used 0,0% concentration treatment (as control); 1,0%; 1,5%; 2,0%; 2,5%; and 3,0%. The average value of the yield, water content, ash, protein, fat of African catfish mashed meat, respectively: 36,61±0,11; 73,72±0,06 (wb); 1,49±0,22 (wb); 16,78±0,18 (wb); 5,63±0,18 (wb). The average range of yield values, water content, ash, protein, fat, appearance, folding strength, bite strength, gel strength, whiteness degree, pH of African catfish surimi were respectively: 19,26±2,09; 74,30% – 75,84%; 1,78% − 2,31% (wb); 12,64% − 14,67% (wb); 2,96% − 3,37% (wb); 9; 5 − 9; 7 − 9; 960,75 − 1182,96 gr/cm^2; 59,96 − 62,62%; 6,5 − 6,67. The results of statistical analysis showed that the concentration of carrageenan had a significant effect on the folding strength value but not with the parameters of appearance, bite strength, gel strength, whiteness, pH, water content, protein content, ash content, and fat content. The addition of carrageenan with a concentration of 3% resulted in the lowest folding strength value of 5, but it was not significantly different from the value of the folding strength with the addition of a carrageenan concentration 2,5% which resulted in a folding strength value of 6,3. The value of appearance, folding strength, bite strength, protein content, and moisture content of the treatment with the addition of carrageenan concentration 0% (p0) – 3% (p6) has met the quality requirements of SNI 2694:2013 surimi, except for the folding strength parameter with the addition of carrageenan concentration by 2,5% (p5) and 3% (p6) which has value of 6,3 and 5 and do not meet the quality requirements of SNI 2694:2013 (minimum 7).

Keywords**:** carrageenan, chemic, physical, sensory, surimi