

ABSTRACT

FORMULATION OF CANNA STARCH AND TAPIOCA ON WATER CONTENT, RESPONSIBILITY AND SENSORY PROPERTIES OF MACKEREL FISH PEMPEK

By

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This study aims to determine the effect of canna starch and tapioca formulations on water content, elasticity and sensory properties of mackerel fish pempek, and to obtain the best canna starch and tapioca formulations based on water content, elasticity and sensory properties of pempek according to SNI 7661:2019. The study was arranged in a Completely Randomized Block Design (RAKL) with a single factor and 4 replications. The treatment was a tapioca and canna starch formulation with a ratio of 100%: 0% (P0), 90%: 10% (P1), 80%: 20% (P2), 70%: 30% (P3), 60%: 40 % (P4), and 50% : 50% (P5). The homogeneity of the data was analyzed with the Bartlett test and additional data were tested with the Tuckey, then analysis of variance (ANARA) was carried out to determine the effect between treatments. there is a significant effect, the data were analyzed with the Least Significant Difference Test (BNT) at the 5% level. The results showed that the tapioca and canna starch formulations had a significant effect on the moisture content, hardness, elasticity, compactness, color, aroma, taste, texture and overall acceptance of mackerel fish pempek. The best mackerel pempek according to SNI 7661:2019 on the treatment of 10% canna starch and 90% tapioca color score 6.94 (vibrating white), aroma 7.20 (specifically pempek), taste 6.66 (specifically pempek), texture 6.87 (chewy), total acceptance 7.39 (like), water content of 49.31%, protein content of 18.39%, hardness value of 244.77 N, springiness value of 7.97 mm, and cohesiveness value of 0.63 N.

Keywords: pempek, mackerel fish, canna starch, tapioca

ABSTRAK

FORMULASI PATI GANYONG DAN TAPIOKA TERHADAP KADAR AIR, KEKENYALAN DAN SIFAT SENSORI PEMPEK IKAN TENGGIRI

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Penelitian ini bertujuan mengetahui pengaruh formulasi pati ganyong dan tapioka terhadap kadar air, kekenyalan dan sifat sensori pempek ikan tenggiri, serta mendapatkan formulasi pati ganyong dan tapioka terbaik yang menghasilkan kadar air, kekenyalan dan sifat sensori pempek sesuai SNI 7661:2019. Penelitian disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan faktor tunggal dan 4 ulangan. Perlakuan penelitian adalah formulasi tapioka dan pati ganyong dengan perbandingan 100% : 0% (P0), 90% : 10% (P1), 80% : 20% (P2), 70% : 30% (P3), 60% : 40% (P4), dan 50% : 50% (P5). Kehomogenan data dianalisis dengan uji Bartlett dan kemenambahan data diuji dengan uji Tuckey, selanjutnya dilakukan analisis sidik ragam (ANARA) untuk mengetahui pengaruh antar perlakuan. Apabila terdapat pengaruh yang nyata, data dianalisis dengan Uji Beda Nyata Terkecil (BNT) pada taraf 5%. Hasil penelitian menunjukkan bahwa formulasi tapioka dan pati ganyong berpengaruh nyata terhadap kadar air, *hardness*, *springiness*, *cohesiveness*, warna, aroma, rasa, tekstur dan penerimaan keseluruhan pempek ikan tenggiri. Pempek ikan tenggiri terbaik sesuai SNI 7661:2019 pada perlakuan pati ganyong 10% dan tapioka 90% skor warna 6.94 (putih kekuningan), aroma 7.20 (khas pempek), rasa 6.66 (khas pempek), tekstur 6.87 (kenyal), penerimaan keseluruhan 7.39 (suka), kadar air sebesar 49,31%, kadar protein sebesar 18,39%, nilai *hardness* sebesar 244,77 N, nilai *springiness* sebesar 7,97 mm, dan nilai *cohesiveness* sebesar 0,63 N.

Kata kunci: pempek, ikan tenggiri, pati ganyong, tapioka