

ABSTRAK

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PENGARUH PENAMBAHAN HPMC TERHADAP KARAKTERISTIK FISIKOKIMIA DAN SENSORI MI KERING ANALOG BERBASIS SINGKONG

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(xvi + 82 halaman: 23 gambar; 9 tabel; 53 lampiran)

Mi merupakan produk pangan sumber karbohidrat dengan bahan baku tepung terigu banyak dikonsumsi oleh masyarakat. Tepung singkong digunakan sebagai pengganti tepung terigu dalam pembuatan mi kering analog sebagai upaya mengurangi ketergantungan impor tepung terigu. Kandungan amilopektin yang tinggi pada tepung singkong menyebabkan kelengketan pada mi analog sedangkan kandungan amilosa yang rendah menyebabkan struktur gel yang lemah pada mi analog. Penambahan HPMC dilakukan untuk menurunkan kelengketan dan memperbaiki karakteristik mi kering analog berbasis singkong. Konsentrasi HPMC yang digunakan dalam penelitian ini adalah 0,0%; 1,0%; 2,0%; 3,0%; 4,0% terhadap berat total tepung yang digunakan (tepung singkong dan tepung tapioka) serta mi terigu komersial sebagai kontrol. Perlakuan terbaik berdasarkan hasil analisis dan uji sensori adalah mi kering analog berbasis singkong dengan penambahan HPMC 2,0%. Namun, penambahan HPMC 2,0% belum mampu menurunkan tingkat kelengketan serta *cooking loss* dari mi kering analog singkong. Penambahan HPMC 2,0% dapat meningkatkan *chewiness*, *tensile strength*, elastisitas, elongasi mi analog. Penambahan HPMC 2,0% tidak berbeda dengan mi terigu komersial berdasarkan hasil uji analisis elongasi, elastisitas, tekstur parameter *chewiness* dan *springiness*, serta hasil uji hedonik rasa, kekerasan, kelengketan, dan penerimaan keseluruhan. Mi kering analog berbasis singkong terbaik memiliki kadar air 10,31%, kadar abu 2,47%, kadar protein 2,46%, kadar lemak 1,16%, kadar karbohidrat 83,90%, *cooking loss* 14,57±0,24%, elongasi 71,13±1,03%, kelengketan -6443,63±301,26g.s, *chewiness* 3008,72±180,08, *tensile strength* 22,90±1,20g, elastisitas -11,93±1,20mm, serta nilai hedonik penerimaan keseluruhan 5,35±0,88.

Kata Kunci : HPMC, mi kering analog, tepung singkong, tepung tapioka

Referensi : 100 (1981 - 2020)

ABSTRACT

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EFFECT OF HPMC ADDITION TO THE PSYCHOCHEMICAL AND SENSORY CHARACTERISTICS IN CASSAVA BASED DRY ANALOG NOODLES

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Noodles are a wide known food product and a carbohydrate source with wheat flour as the main ingredient. Cassava flour is used to reduce the use of imported wheat flour in making of dry analog noodles. Cassava flour is high in amylopectin that causes high adhesiveness and a weak gel structure in analog noodles. The aim of this study that is the addition of HPMC in the making of cassava dry analog noodles as an effort to reduce adhesiveness and to enhance the characteristic of the analog noodles. The concentrations that are used in this research are 0,0%; 1,0%; 2,0%; 3,0%; 4,0% weight of the total flour used (cassava flour and tapioca flour) and commercial wheat noodles is used as the control. The best concentration of HPMC used in cassava dry analog noodles based on the analysis and sensory results is 2,0%. However, the addition of HPMC 2,0% could not lower the adhesiveness and cooking loss of cassava dry analog noodles. Addition of HPMC 2,0% can increase chewiness, tensile strength, elasticity, and elongation of analog noodles. Addition of HPMC 2,0% have similiar results with the commercial wheat noodles used as control in analysis results for elongation, elasticity, texture chewiness and springiness, also from the hedonic results in flavor, hardness, adhesiveness, and overall acceptance. The best cassava dry analog noodles contain water content 10,31%, ash content 2,47%, protein content 2,46%, fat content 1,16%, carbohydrate content 83,90%, cooking loss 14,57±0,24%, elongation 71,13±1,03%, adhesiveness -6443,63±301,26g.s, chewiness 3008,72±180,08, tensile strength 22,90±1,20g, elasticity -11,93±1,20mm, and hedonic value of overall acceptance 5,35±0,88.

Keywords : cassava flour, dry analog noodle, HPMC, tapioca flour

Reference : 100 (1981 - 2020)