

Intisari

Penelitian ini bertujuan untuk mengetahui pemanfaatan tepung tulang tuna sebagai sumber kalsium dan mengetahui kajian mutu (kimia, fisik, dan sensori) mi (basah, kering, dan instan) difortifikasi tepung tulang tuna serta kontribusi terhadap angka kecukupan gizi. Perlakuan yang digunakan terdapat dua faktor yaitu faktor A meliputi mi basah, kering, dan instan, dan faktor B meliputi konsentrasi tepung tulang tuna 0, 1, dan 2%. Parameter uji yang dilakukan adalah pengujian kimia (kadar air, abu, lemak, protein, karbohidrat, kalsium, dan fosfor); fisik (kelentingan, *cooking loss*, dan daya serap air); serta pengujian sensoris. Mutu fisik dan kimia sangat dipengaruhi oleh pengolahan produk mi. Pengukusan pada mi basah mengakibatkan kelentingan tinggi (136,84%), serta daya serap air rendah (191,11%). Pengeringan pada mi kering mengakibatkan daya serap air tinggi (251,11%). Mi instan terdapat tahap penggorengan mengakibatkan kadar lemak (15,7%), protein (9,32%), dan *cooking loss* (6,82%) tinggi. Penambahan tepung tulang tuna dapat meningkatkan kadar abu produk mi (1,63-2,22%). Rekomendasi fortifikasi sumber kalsium pada penelitian ini adalah pada mi basah dengan fortifikasi tepung tulang tuna 1%. Hal ini berdasarkan rasio Ca/P 1:1,32 yang paling mendekati 1:1 serta hasil uji fisik, dan sensoris. Kadar kalsium pada mi basah fortifikasi tepung tulang tuna 1% sebesar 0,32% yang mampu memenuhi kebutuhan kalsium perhari sebesar 34%.

Kata kunci: Fortifikasi, Kalsium, Mi, Mutu, Tepung Tulang Tuna

Abstract

The aim of this research is to know the utilization of tuna bone flour as a source of calcium and to know the quality (chemical, physical, and sensory) of (wet, dry, and instant) noodles which is fortified with tuna bone flour and its contribution to Recommended Dietary Allowance (%RDA). The treatments were two factors: factor A included wet, dry, and instant noodles, and B factor consisted of 0, 1, and 2% concentration of tuna bone flour. The parameters were chemical test (water content, ash, fat, protein, carbohydrate, calcium, and phosphorus); physical (elasticity, cooking loss, and water absorption); as well as sensory testing. Physical and chemical quality is strongly influenced by the processing of noodles. Steaming on wet noodles resulted in a high elasticity (136.84%), and low water absorption (191.11%). Drying of dry noodles results in high water absorption (251.11%). Instant noodles contain deep-frying resulted high fat content (15.7%), protein (9.32%), and cooking loss (6.82%). The addition of tuna bone flour increased the ash content of noodles products (1.63-2.22%). The recommendation of calcium source fortification in this study was on wet noodles with fortified tuna bone flour 1%. It is based on the ratio of Ca/P 1: 1.32 most approaching the 1:1 as well as result of physical and sensory test. Calcium content in wet noodles fortified 1% tuna bone flour was 0.32% that could fill the needs of calcium per day by 34%.

Keywords: Calcium, Fortification, Noodles, Quality, Tuna Bone Flour