ABSTRACT

EFFECT OF ADDING MORINGA LEAF FLOUR (*Moringa Oleifera L.*) ON THE PHYSICAL, CHEMICAL AND SENSORY CHARACTERISTICS OF TILAPIA FISH (*Oreochromis niloticus*) DUMPLINGS

By

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Processed fishery products in the form of dumpling are high in carbohydrates and protein, because they are made from at least 30% minced meat mixed with flour and other ingredients. However, dumpling is low in fiber and needs to be supplemented with high fiber ingredients, such as Moringa leaf flour. The aim of this research is to determine the effect of adding Moringa leaf flour on the physical, chemical and sensory characteristics of tilapia dumpling, as well as to establish the proportion of Moringa leaf flour addition that produces the best tilapia dumpling in accordance with SNI 7756:2013. The research was conducted using a Complete Randomized Block Design (RAKL) with one factor and four replications consisting of 6 levels, namely the concentration of Moringa leaf flour addition of 0% (P1), 1% (P2), 2% (P3), 3% (P4), 4% (P5) and 5% (P6). The best treatment is determined using the star method. The research findings indicated that the addition of Moringa leaf flour had influenced the physical, chemical, and sensory characteristics of tilapia fish dumpling. The best treatment for tilapia dumpling was treatment P6 (5%) with a gel strength value of 122.37g, water content of 58.97%, texture of 3.24 (chewy), taste of 4.54 (very characteristic of Moringa), aroma of 4.75 (very characteristic of Moringa) color of 4.87 (dark green), ash content of 2.24%, crude fiber content of 12.53%, fat content of 1.97%, protein content of 12.19% and antioxidant activity of 4087.90 ppm.

Key words: fish dumpling, moringa leaf flour, tilapia fish, fiber

ABSTRAK

PENGARUH PENAMBAHAN TEPUNG DAUN KELOR (*Moringa Oleifera L.*) TERHADAP KARAKTERISTIK FISIK, KIMIA DAN SENSORI SIOMAY IKAN NILA (*Oreochromis niloticus*)

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Produk olahan hasil perikanan berupa siomay, tinggi akan karbohidrat dan protein, karena terbuat dari lumatan daging minimal 30% dengan campuran tepung dan bahan-bahan lainnya. Akan tetapi, siomay rendah serat dan perlu ditambahkan bahan tambahan yang tinggi serat, yaitu berupa tepung daun kelor. Tujuan penelitian ini adalah mengetahui pengaruh penambahan tepung daun kelor terhadap karakteristik fisik, kimia dan sensori siomay ikan nila serta menentukan porsi penambahan tepung daun kelor yang menghasilkan siomay ikan nila terbaik dan sesuai SNI 7756:2013. Penelitian dilakukan dengan Rancangan Acak Kelompok Lengkap (RAKL) dengan satu faktor dan empat kali ulangan yang terdiri dari 6 taraf yaitu konsentrasi penambahan tepung daun kelor sebesar 0% (P1), 1% (P2), 2% (P3), 3% (4), 4% (P5) dan 5% (P6). Perlakuan terbaik ditentukan menggunakan metode bintang. Hasil penelitian menunjukkan bahwa penambahan tepung daun kelor berpengaruh terhadap karakteristik fisik, kimia dan sensori siomay ikan nila. Siomay ikan nila perlakuan terbaik adalah perlakuan P6 (5%) dengan nilai kekuatan gel 122,37g, kadar air 58,97%, tekstur 3,24 (kenyal), rasa 4,54 (sangat khas kelor), aroma 4,75 (sangat khas kelor) warna 4,87 (hijau gelap pekat), kadar abu 2,24%, kadar serat kasar 12,53%, kadar lemak 1,97%, kadar protein 12,19% dan aktivitas antioksidan 4087,90 ppm.

Kata kunci: siomay ikan, tepung daun kelor, ikan nila, serat