

ABSTRAK

Josavan Chrystonoelle (0103419044)

KARAKTERISTIK FISIKOKIMIA DAN SENSORI MI BASAH PADA BERBAGAI RASIO SUBSTITUSI TEPUNG TERIGU DAN BUBUK BIJI RAMI DENGAN VARIASI KONSENTRASI KANSUI

Skripsi, Fakultas Sains dan Teknologi (2022)

(xv + 96 halaman; 27 gambar; 12 tabel; 12 lampiran)

Mi basah merupakan produk pangan dengan bahan baku tepung terigu. Tepung terigu mengandung gluten yang dapat menyebabkan penyakit *celiac disease* apabila dikonsumsi secara berlebihan. Bubuk biji rami merupakan biji-bijian tinggi akan serat dan protein. Oleh karena itu, pada penelitian ini tepung terigu akan disubstitusikan dengan bubuk biji rami dengan berbagai konsentrasi kansui dalam pembuatan mi basah. Tujuan dari penelitian ini adalah menentukan rasio terbaik antara tepung terigu dan bubuk biji rami (100:0, 810:20, 60:40, dan 40:60) serta konsentrasi kansui (0,5% dan 1%) terbaik terhadap kadar serat pangan, kadar protein, kadar air, *cooking loss*, kekuatan tensil, *hardness*, *adhesiveness*, *chewiness*, uji sensori (skoring dan hedonik), *lightness*, daya serap air, dan *springiness*. Formulasi terbaik pada penelitian ini merupakan mi basah yang dibuat dengan tepung terigu dan bubuk biji rami dengan rasio 80:20 dengan konsentrasi kansui 0,5%. Mi basah formulasi terbaik mengandung kadar serat pangan (11,35±0,08%), kadar protein (8,29±0,77%), kadar air (67,42±0,76%), *cooking loss* (4,12±1,31%), kekuatan tensil (0,91±0,01) skoring aroma (3,20±1,25) “sedikit tidak beraroma asing”, skoring rasa (3,10±1,30) “sedikit tidak berasa asing”, skoring kekenyalan (4,25±0,87) “sedikit kenyal”, skoring kekerasan (2,73±1,04) “tidak keras” mendekati “sedikit tidak keras”, skoring kecerahan (4,05±0,93) “sedikit cerah”, hedonik aroma (4,68±1,23) “netral” mendekati “sedikit suka”, hedonik rasa (4,93±1,29) “netral” mendekati “sedikit suka”, hedonik kekenyalan (5,45±1,04) “sedikit suka”, hedonik kekerasan (5,25±0,90) “sedikit suka”, hedonik kecerahan (4,83±0,98) “netral” mendekati “sedikit suka”, hedonik keseluruhan (5,08±1,12) “sedikit suka”, *hardness* (2814,73±56,34 g), *adhesiveness* (-956,16±170,28 gs), *chewiness* (1998,35±98,08), *lightness* (64,37±1,63), daya serap air (77,25±1,61%), dan *springiness* (0,92±0,00).

Kata Kunci : Bubuk biji rami, kansui, mi basah, serat, tepung terigu

Referensi : 77 (2005 – 2022)

ABSTRACT

Josavan Chrystonoelle (01034190044)

PHYSICOCHEMICAL AND SENSORY CHARACTERISTICS OF WET NOODLE IN VARIOUS RATIOS OF WHEAT FLOUR SUBSTITUTION AND FLAXSEED POWDER WITH VARIATIONS OF KANSUI CONCENTRATION

Thesis, Faculty of Science and Technology (2022)

(xv + 96 pages; 27 pictures; 12 tables; 12 appendices)

Wet noodles are food products with wheat flour as the raw material. Wheat flour contains gluten, which can cause celiac disease if consumed in excess. Flaxseed powder is a seed high in fiber and protein. Therefore, in this study wheat flour will be substituted with flaxseed powder with various concentrations of kansui in making wet noodles. The purpose of this study was to determine the best formulation between wheat flour and flaxseed powder (100:0, 80:20, 60:40, and 40:60) and the difference in kansui concentration (0.5% and 1%) on dietary fiber content, protein content, moisture content, cooking loss, tensile strength, hardness, adhesiveness, chewiness, sensory tests (scoring and hedonic), lightness, water absorption, and springiness. The best formulation in this study is wet noodles a ratio of 80:20 with a kansui concentration of 0.5%. The best formulation of wet noodles contained dietary fiber ($11.35 \pm 0.08\%$), protein content ($8.29 \pm 0.77\%$), moisture content ($67.42 \pm 0.76\%$), cooking loss ($4.12 \pm 1.31\%$), tensile strength (0.91 ± 0.01) an aroma score (3.20 ± 1.25) "slightly not foreign odor", taste score (3.10 ± 1.30) "slightly not foreign odor", elasticity score (4.25 ± 0.87). "slightly chewy", hardness score (2.73 ± 1.04) "not hard" close to "slightly not hard", lightness score (4.05 ± 0.93) "slightly bright", hedonic aroma (4.68 ± 1.23) "neutral" close to "slightly like", hedonic taste (4.93 ± 1.29) "neutral" close to "slightly like", hedonic elasticity (5.45 ± 1.04) "slightly like", hardness hedonic (5.25 ± 0.90) "slightly like", brightness hedonic (4.83 ± 0.98) "neutral" is close to "slightly like", overall acceptance hedonic (5.08 ± 1.12) "slightly like", hardness ($2814.73 \pm 56.34\text{g}$), adhesiveness ($-956.16 \pm 170.28\text{gs}$), chewiness (1998.35 ± 98.08), lightness (64.37 ± 1.63), water absorption ($77.25 \pm 1.61\%$), and springiness (0.92 ± 0.00).

Keywords : Flaxseed powder, fiber, kansui, wet noodle, wheat flour
Reference : 77 (2005 – 2022)