ABSTRACT

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SUBSTITUTION WHEAT FLOUR WITH MELINJO PEEL FLOUR (Gnetum gnemon L.) AND SOY BEAN FLOUR (Glycine max) IN THE PREPARATION OF WET NOODLE

Melinjo peel (Gnetum gnemon L.) is rarely used and simply considered as waste in Emping (Indonesian traditional crackers) production, although it contains phytochemical compounds such as flavonoid, carotenoids, phenolic, and also functional nutrient such as dietary fiber. Wet noodle is wheat flour based product which is favored by Indonesian people. Unfortunately it has a low dietary fiber content and consumption of dietary fiber in Indonesia is still inadequate. This research was aimed to develop wet noodle using melinjo peel flour and soy bean flour with four different ratio wheat flour : melinjo peel flour : soy bean flour ratio of 100:0:0, 75:20:5, 75:17.5:7.5, and 75:15:10. Each treatment is analyzed for physical characteristic (water absorption, cooking loss, color, and texture), and sensory quality (color, aroma, flavor, and texture). The result showed that the ratio of wheat flour : melinjo peel flour : soy bean flour 75:20:5 has the characteristic that closest to the control formulation (100:0:0). The water absorption of 67.36%, cooking loss of 16.45%, hardness of 2002.37 gf, springiness of 0.961 gf, adhesiveness of -3954.12 gf, *Hue 82.60 and the dietary fiber of 5.97%. The best ratio of wet noodle in refrigerated temperature it can last for 144 hours and in the room temperature for 24 hours. For the refrigerated, there is no microbial growth with the total plate count of 0 CFU/g. While at room temperature the total plate count of 8.8x10^5 CFU/g which is below the Indonesian National Standard.

Keywords: Dietary fiber, melinjo peel flour, storage, wet noodle.