ABSTRACT

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EFFECT OF CONCENTRATION AND PROCESSING TYPES OF GREEN MELINJO (Gnetum gnemon L.) PEEL TOWARDS DRIED NOODLE CHARACTERISTICS
(xvii + 159 pages, 21 tables, 28 figures, 34 appendices)

Melinjo (Gnetum gnemon L.) is an Indonesian plant. Its peel is known to have potency as a source of dietary fiber. Noodle is a food product commonly consumed by all economic level, even known as a second staple food in Indonesia. This study was aimed to observe the effect of green melinjo peel substitution toward the characteristic of dried noodle. The best cabinet dryer temperature was determined in the first stage of this research. In the main research, two different processing types of green melinjo peel (puree and powder), as well as four different concentrations (0%, 2.5%, 5%, and 7.5%) were applied to dried noodle. Moisture content, cooking quality, texture, and sensory properties were used to assess the dried noodle characteristic. The data showed that the drying temperature at 60°C was chosen as the best drying temperature applied in the subsequent stages. From the main research, it was shown concentration of green melinjo peel affected the chewiness and adhesiveness of noodles, while the processing type affected the chewiness only. The interaction of both factor affected the moisture content, water absorption, cooking loss, optimum cooking time, hardness, and sensory properties of the noodle. Higher concentration of green melinjo peel increased the water absorption and the cooking loss, but decreased the optimum cooking time, the texture of cooked noodle, and the overall acceptance. The processing type of puree gave higher moisture content, optimum cooking time, and texture of cooked noodle, but lower water absorption and cooking loss than processing type of powder. The dried noodle with substitution of 2.5% green melinjo peel puree contained 12.99% protein and 11.19% total dietary fiber.

Keywords: Dried noodle, green melinjo peel, concentration, substitution, and dietary fiber

References: 74 (1982-2012)