ABSTRACT

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UTILIZATION OF RED MELINJO PEEL EXTRACT (Gnetum gnemon L.) AS PRESERVATIVES FOR WET NOODLE
(xvi + 111 pages : 9 tables, 9 pictures, 32 appendixes)

Red melinjo peel is a type of vegetable commonly found in Indonesian food, which sometimes became waste from melinjo processing. It has been documented to possess antimicrobial properties. In this research, red melinjo peel extract was tested against the bacteria and fungi by well diffusion agar method. Then the research determined the MIC, MBC, and MFC for each bacteria and fungi. The extract applied to wet noodle with concentration of 4 MIC and then tested in microbiology test, hedonic and descriptive test, and challenge test. It showed that the peel extract could inhibit the growth of S. aureus (11.83 – 15.88 mm), B. cereus (11.14 – 15.04 mm), Pseudomonas sp. (7.90 – 14.49 mm), and E. coli (5.90 – 12.26 mm), but unable to inhibit Mucor sp., and Penicillium sp. The noodle could be preserved for two days according to SNI of total amount of microbes. Descriptive test showed that the scores in aroma and texture decreased slightly, whereas the score for color increased slightly; and hedonic test (aroma, color, and texture) showed that the panel considers the wet noodle (4 MIC) acceptable during the two days storage period. The wet noodle (4 MIC) had red color, with *Hue 44.43 – 43.60. According to the challenge test, the wet noodle (4 MIC) was capable of preventing bacterial activity and growth.

Keyword : red melinjo peel, extract, antimicrobial, wet noodle