

Property of Fermented Sweet Potato Flour and Its Suitability for Composite Noodle

Authors : Neti Yuliana, Srisetyani, Siti Nurdjanah, Dewi Sartika, Yoan Martiansari, Putri Nabila

Abstract : Naturally sweet potato flour usually requires a modification process to improve its inherent property for expanding its application in food system. The study was aimed to modify sweet potato flour (SPF), to increase its utilization for composite noodle production, through fermentation of sweet potato slices before its flouring process. Fermentation were prepared with five different starters: pickle brine, *Lactobacillus plantarum*, *Leuconostoc mesenteroides*, mixed of *Lactobacillus plantarum*, *Leuconostoc mesenteroides*, and mixed of *Lactobacillus plantarum*, *Leuconostoc mesenteroides*, and *Sacharomyces cerevisiae*. Samples were withdrawn every 0, 24, 48, 72 and 96 hours. The fermented flours were characterized for swelling power, solubility, paste transmittance, pH, sensory properties (acidic aroma and whiteness), and the amount of broken composite noodle strips. The results indicated that there was no significant effect of different starters on fermented SPF characteristic and on the amount of broken noodle strip, while length of fermentation significantly affected. Longer fermentation, reaching 48-72 h, increased swelling power, pH, acidic aroma and whiteness of flour and reduced solubility, paste transmittance, and the amount of broken noodle strip. The results suggested that fermentation within 48-72 h period of time could provide great composite SPF for noodle.

Keywords : starters, fermented flour, sweet potato, composite noodle

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