**Effect of autoclaving-time treatment on physicochemical, antioxidant properties and shelf-life prediction of Indonesian instant cassava leaves porridge**

*Iwansyah, Ade Chandraa; Desnilasari, Dewib; Sholichah, Ennyc; Agustina, Wawanc; Hamid, Hazrulrizawati Abdd*

aResearch Center for Food Technology and Processing, National Research and Innovation Agency, Yogyakarta, Indonesia

bResearch Center for Applied Microbiology, National Research and Innovation Agency, Indonesia, Bogor, West Java, Indonesia

cResearch Center for Appropriate Technology, National Research and Innovation Agency, West Java, Subang, Indonesia

dFaculty of Industrial Sciences and Technology, Universiti Malaysia Pahang, Gambang, Kuantan, Malaysia

**ABSTRACT**

This study investigated the effects of autoclaving-time treatment (0, 3, 5, and 7 minutes) on the physicochemical and antioxidant properties of Indonesian instant cassava porridge or rowe luwa. The shelf-life prediction of rowe luwa porridge also was determined. The rowe luwa porridge contained nutrition, such as moisture content (4.41%), fat (7.69%), protein (11.77%), carbohydrates (67.15%), energy (384.89 kcal), zinc (2.73 mg/100g), calcium (174.48 mg/100 g), and iron (2.9 mg/100 g). Furthermore, rowe luwa has a complete composition of essential amino acids the body needs. The rehydration time and pH of rowe luwa porridge showed the highest value on autoclaving for 3 minutes (AU3) and decreased with increasing autoclaving time (p < 0.05). The rehydration time was in line with the solubility and WAI values. The rowe luwa porridge with three minutes autoclave time treatment (AU3) also had the highest total phenolic contents (TP) and antioxidant activity (AOA), followed by AU0 > AU5> and AU7 (p < 0.05). Based on the FTIR spectra, the antioxidant of this instant cassava porridge might be linked to phenolic chemicals. The shelf-life prediction of rowe luwa porridge with aluma packaging is 61 days or two months.

**KEYWORDS**

Antioxidant; Autoclaving-time treatment; Cassava leaves porridge; Moringa oleifera; Shelf-life prediction

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