ABSTRACT

T.A. Tyas Kilulud. 24020219130068. **Characteristics of Cricket Paste (*Gryllus bimaculatus*) as a Diversification of Fermented Food Products with Various Salt Content Variations**. Supervised by Siti Nur Jannah and Arina Tri Lunggani

The increase in global population has increased the need for sustainable consumption of animal and plant proteins. Insects such as crickets have the potential as an alternative source of protein that is rich in nutrition and environmentally friendly compared to conventional livestock. This research aims to analyze the nutritional value of cricket shrimp paste fermented with varying salt concentrations (NaCl) of 5%, 10%, 15%, 20% and 25%. Proximate analysis and organoleptic tests are carried out to evaluate the nutritional value and sensory characteristics of the product. The results showed significant differences in protein, fat and ash content between cricket paste groups. The TJ1 treatment with a salt content of 5% showed the highest protein content (28.798%) and the highest fat content (11.567%). Meanwhile, the TJ5 treatment with a salt content of 25% showed the highest ash content (29.602%). Organoleptic tests confirmed that shrimp paste with a salt content of 15% (TJ3) received the highest assessment with a score of 3.56. Measurements of pH levels and Total Plate Count (TPC) of lactic acid bacteria showed large variations in bacterial populations between samples, highlighting differences in pH levels at the end of fermentation and total numbers of lactic acid bacteria as important for determining product quality. The lowest average pH level on the 30th day of fermentation was found in TJ1 (5.7) and the highest in TJ3 and TJ5 (5.9), with the lowest TPC value in TJ5 (2.2 x 104 CFU/ml) and the highest in TJ1 (2.3 x 105 CFU/ml). In conclusion, cricket paste with varying salt concentrations can be an alternative food that is highly nutritious and suitable for consumption.

Keywords: organoleptic, nutrition, proximate