Pengaruh Konsentrasi Enzim Protease Papain Dalam Pembuatan Kaldu Kepala Udang Terhadap Mutu Organoleptik dan Kimia (Effect of Papain Protease Enzyme Concentration in Making Shrimp Head Broth on Organoleptic and Chemical Quality)

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ABSTRACT

Shrimp head waste is often not utilized optimally, causing environmental pollution. Therefore, a processing method is needed that can produce good quality processed products from shrimp head waste.This study aims to determine the effect of papain protease enzyme concentration on the organoleptic quality of shrimp head broth. The method used in this study was the Randomized Complete Block Design (RCBD) with 6 treatments and 4 replications, using enzyme concentration additions of 0%, 2%, 4%, 6%, 8%, and 10%. Data analysis was conducted using ANOVA statistics. The results of the study indicate that the concentration of papain enzyme in treatment P5, with a concentration of 10% papain enzyme, produced the best values with product characteristics of hedonic color quality at 3.65 (somewhat brown), hedonic color quality at 3.36 (somewhat like), hedonic aroma quality at 3.29 (somewhat strong shrimp aroma), hedonic aroma at 3.16 (somewhat like), hedonic taste quality at 3.20 (somewhat savory), hedonic taste at 3.06 (somewhat like), with the highest glutamic acid content being 3.19% and the highest protein content being 15.16% ±0.07. Therefore, the papain enzyme has a very significant effect on all organoleptic characteristics of the color, aroma and taste of shrimp stock, including hedonic and hedonic quality.

Keywords — *Shrimp head waste, broth, Papain enzyme*