THE UTILIZATION OF PATIN FISH HEAD FOR INSTANT STOCK PASTE

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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Patin fish is a developing industries that produce 67% of waste which 33% is the head. High protein content in patin fish head (PFH) open an opportunity to produce something that has higher economic value and can be used as human consumption, which is stock. In this study, PFH hydrolysis with acid, enzyme and heat were observed for their yield of protein, in correlation to taste & national standard for stock. Enzyme hydrolysis is chosen as the selected method with the highest protein and soluble amino acid which is 18.78 ± 7.50 mg BSA equivalent / ml and 0.854 ± 4.35 mg Tyrosine eq / ml.

The hydrolysate was made into stock by mixing with other ingredient by the help of Design Expert to create selected formula. The formula composition is fish hydrolysate 27.29%, salt 19.17%, caramel 18.52%, garlic 6%, pepper 3.104%, oil 18.52% and water 7.47%. This formula receive 7.13 value from hedonic scale 1-9, which means the formula like moderately based on overall acceptance. For 4 gram stock, 150 ml of water was chosen as the preferable dilution volume for the stock with ranking test.

Total nitrogen of the instant stock paste with selected hydrolysis method and selected formula fulfil National Standard according to SNI No. 01-4218 with 0.077% nitrogen amount.

Keywords: Patin fish waste, Patin fish head, Instant stock, Protein hydrolysis.

DEDICATION

I dedicate this work to my beloved parents, Thomas Martono Hartanto and Winani Kusuma for their endless support and love along the way.

To my brother and sister, Michael Mawi Hartanto and Rafaela Mawi Hartanto and to my future self.

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