



INTISARI

Kolagen merupakan protein jaringan ikat yang banyak dihasilkan dari tubuh mamalia. Pemanfaatan limbah kulit ikan patin menjadi kolagen merupakan salah satu alternatif untuk meningkatkan nilai jual. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan konsentrasi enzim papain terhadap mutu kolagen kulit ikan patin. Perlakuan konsentrasi enzim papain yang digunakan yaitu 0,1 % ; 0,2 % ; 0,3 %. Parameter yang diuji meliputi randemen, pH, kadar protein, kadar air, kadar abu, gugus fungsi dan komposisi asam amino. Hasil penelitian menunjukkan bahwa konsentrasi enzim papain memberikan pengaruh signifikan terhadap randemen kolagen kulit ikan patin tetapi tidak berpengaruh terhadap pH, kadar air, kadar protein dan kadar abu. Perlakuan yang terbaik sesuai SNI yaitu konsentrasi enzim papain 0,3 % dengan nilai randemen 23,3 % ; pH 5,3 ; kadar protein 17,18 %; kadar air 34,8 % dan kadar abu 0,16 %. Tipe kolagen kulit ikan patin bergugus amida A, amida B, amida I, amida II, amida III. Komposisi asam amino yang terkandung berturut-turut: glisin (25,3 %), serin (13,73 %), alanin (12,91 %), asam glutamat (12,07 %) dan lisin (7,9 %).

Kata kunci : ekstraksi, enzim papain, karakteristik, kolagen, kulit ikan patin



ABSTRACT

Collagen is a tissue protein produced from mammalian bodies. Utilization of pangasius catfish skin waste is one alternative to increase the sale value. This research aims to study how to increase the concentration of papain on catfish skin collagen. Papain enzyme concentration treatments used were 0.1 ; 0.2 ; 0.3%. The parameters tested include yield, pH, protein content, water content, ash content, functional groups and amino acid composition. The results showed that the concentration of the papain enzyme had a significant effect on the collagen composition of catfish skin but did not affect the pH, water content, protein content and ash content. The best treatment according to SNI is in the treatment of papain enzymes of 0.3% having a 23.3%; yield of; 5.3 of pH; 17.18% of protein content; 34.8% of water content and 0.16% of ash content. Type of collagen in the skin of catfish in the group of amide A, amide B, amide I, amide II, amide III. The composition of amino acids contained in a row: glycine (25.3 %), serine (13.73%), alanine (12.91 %), glutamic acid (12.07 %) and lysine (7.9 %).

Keywords: extraction, enzyme papain, characteristics, collagen, skin pangasius