

EFFECT OF PROTEIN INJECTION ON PROTEIN SOLUBILITY AND PROXIMATE COMPOSITION OF FISH FILLETS DURING CHILLED STORAGE

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ABSTRACT : In the present study, fish protein isolated from filleting wastes of Asian Sea Bass was injected (3% protein concentration + 1.5% brine) in Sea Bass fillets at different level of incorporation i.e., 0% (C) 5% (T₁), 10% (T₂) and 15% (T₃) (w/v) using injector. Protein solubility, proximate composition of injected fillets were investigated during chilled (4±1°C) storage (0th, 3rd, 6th, 9th, 12th day). During storage the fillets of T₂ and T₃ treatments recorded significantly higher (p<0.05) protein solubility at pH 11.0 as compared to C and T₁. During this study significant improvement (p<0.05) in protein values was observed in T₂ samples and T₃ samples. Injection of protein isolate resulted that T₁ samples significantly (p<0.05) score better than C in reducing moisture loss. It can be concluded that the utilization of filleting wastes in the form of protein isolates not only improve the nutritional value of fillets but also reduced the environmental pollution in an eco-friendly manner.

Key words : Filleting waste, fish protein isolates, protein solubility, proximate composition, chilled storage.