

Development of Fish Balls Using Catla Fish (*Catla catla*): Exploration the Potential of Better Utilization of Freshwater Food Fish in Sri Lanka

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Catla fish is the one of mostly cultivated, freshwater food fish in aquaculture sector. Present study was aimed to enhance Carp fish production by developing a value added fish ball products from Catla using appropriate processing technologies. Catla fish were collected from Ulhitiya reservoir. Three different treatments of fish meat:ice water ratios (w/v) as: 50%:37% (treatment1), 70%:17% (treatment2) and 85%:2% (treatment3) were used for fish ball processing after the preliminary trials. Organoleptic evaluation was conducted to determine color, texture, aroma, mouth feel, taste and overall acceptance of products using 30 untrained panelists. pH, color, and TBARS values of all final products at -20°C freezing condition were measured weekly. The proximate compositions of fish ball products were analyzed following standard protocols. Based on the results, highest scores for aroma, taste and overall acceptance were recorded for treatment 2 (fish meat: ice water-70%:17%). Ash content of treatment 1, 2 and 3 were 4.06±0.4%, 4.27±0.92% and 4.00±0.82% respectively with no significant difference (P>0.05). However, moisture and lipid contents had significant difference (P<0.05) among the treatments, while the highest lipid content was recorded in treatment1 (6.96±0.60%) and the lowest moisture content was recorded in treatment2 (70.15±2.43%). Protein content of Catla fish ball products varied from 14.00 to 15.00%. TBARS and pH of all treatments were at the range of 6.41-6.51 and 0.36-0.90 mg MDA/kg respectively which were within acceptable levels for consumption during storage. L*, a* and b* values of final products gradually decreased during storage period, but without significant (P>0.05) variation during storage period. In conclusion, Catla is a suitable alternative source for production of high quality, consumer preferred fish balls.

Keywords: Food fish, Nutritional quality, Catla, Consumer, Physico-chemical parameters