

**INCREASING THE STRUCTURE STABILITY OF
FISH SOUP CUBE PRODUCED WITH FISH
POWDER OF
YELLOWFIN TUNA (*Thunnus albacares*)**

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by

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Abstract

Approximately 40% of total body weight of tuna fish is removed from processing industry as waste. Even though that is considered as waste in tuna processing industry there is a possibility to add more value to these wastes by producing more quality and popular food products. Fat, salt and seasonings are used as other ingredients to formulate the fish soup cube. Fish soup mix was developed by mixing ingredients according to the pre-developed recipe with slight modifications and made into a cube by using a mold. Present study was carried out to improve the cube structure and its stability with incorporation of gelatin. In fish and seafood processing industry gelatin is used as a stabilizer to keep their shape for cutting and to prevent deterioration through exposure to light and oxygen. Preliminary trial for determining suitable gelatin level was conducted 0% - 50% of gelatin and secondary trial was conducted 5% to 12.5% of gelatin. Best combination of fish powder mix to gelatin was determined as 100:5 by analyzing the strength of soup cubes by texture analyzer. Proximate analysis of fish soup cube showed higher amount of protein, fat, ash content and lower moisture content. Shelf life of the soup cube was analyzed for 4 week storage period at room temperature and refrigerated conditions. Both samples were checked for quality deterioration by chemical and microbiological parameters. Moisture content, TVBN level, pH, water activity, yeast and mold count and total plate count were estimated as an indicator of the degree of products freshness. Samples were analyzed in accordance to the methods of AOAC standards. Results were statistically analyzed by using Minitab 16 software. The results obtained by storage test were considered as acceptable level as set by SLSI. Based on these findings, it can be concluded that incorporation of gelatin in fish developed soup cube of powdered yellow fin tuna can be used to improve the cube structure and stability of the fish soup cube.

KEYWORDS: fish soup cube, Yellowfin tuna, Gelatin, Sensory evaluation.