

DETERMINATION OF SUITABILITY OF LOCAL RAW SWORDFISH (*Xiphias gladius*) AND IMPORTED CANNED FISH FOR THE PREPARATION OF VALUE ADDED FISH PRODUCTS

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High postharvest losses of fish and the busy time schedule of the people are some of the reasons that reduce the fish consumption. Therefore, value added products have become familiar among most consumers and manufacturers are encouraged to develop value added fish products. This study was undertaken at Keells Food Products PLC, to determine the suitability of local raw Swordfish (*Xiphias gladius*) and imported canned fish in making of value added products of fish Chinese rolls, fish burger, fish cake and fish fingers, by comparing the quantitative losses and their organoleptic qualities.

The quantitative losses of Swordfish (freezing, drip, cutting and mincing loss) were calculated. Cooking loss, chilling loss, frying loss and freezing loss were calculated for fish Chinese rolls prepared with 100% canned fish and 50% canned fish + 50% Swordfish. Also, freezing loss was calculated for fish burgers prepared with 100% Swordfish and 33% canned fish + 67% Swordfish. For fish fingers treated with 100% Swordfish and 25% canned fish + 75% Swordfish and fish cakes treated with 100% Swordfish and 33% canned fish + 67% Swordfish, frying losses and freezing losses were calculated. Sensory qualities were determined in each of the product made out of canned fish and Swordfish.

Results indicated that, the freezing loss and drip loss of raw Swordfish were maximum of 1.5% and 2.5% respectively. Cutting loss and mincing loss were maximum of 0.2% and 0.3% respectively in raw Swordfish. For fish Chinese rolls, total yield losses were high when mixture of both fish was used, because additional losses were accounted with the operations involved in processing of Swordfish. For fish burgers and fish cake, total yield losses were high when used 100% Swordfish, because of the yield losses of Swordfish at freezing, thawing, cutting and mincing. But, for fish fingers, use of 100% Swordfish showed a lower loss due to low frying and freezing losses of the end product. There was no significant difference ($p > 0.05$) in overall acceptability of different treatments of fish used when organoleptic characters of value added products were evaluated. Finally, it can be concluded as, use of 100% canned fish is suitable in preparation of fish Chinese rolls, where as in preparation of fish burger and fish cake, combination of 33% canned fish with 67% Swordfish is more suitable. Use of 100% Swordfish more appropriate in preparation of fish fingers.

Key words: Swordfish, Canned fish, Value added fish products