

ABSTRACT

APPLICATION OF REDISTILLATE LIQUID SMOKE MADE FROM COCONUT FIBER TO EXTEND THE SHELF LIFE OF TUNA (*Euthynnus affinis*)

By

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Tuna (*Euthynnus affinis*) has a high protein content and omega-3 fatty acids, but the fish undergo a process of decay quickly caused by bacterial and chemical changes. One of the prevention of damage in Tuna by using liquid smoke. This study aims to get the best concentration and soaking time for the preservation of Tuna. This research used a complete randomized block design (CRBD) with factorial then further analyzed using the least significant difference test (LSD). Liquid smoke concentration versus distilled water used is K1 (15%: 85%); K2 (30%: 70%); and K3 (45%: 55%) with soaking time (L) is L1 (15 minutes), L2 (30 minutes), and L3 (45 minutes). Observations made include organoleptic, moisture content, Total Plate Count (TPC) and protein content. Based on observations noted that the higher the concentration of liquid smoke is applied to Tuna, the total microbial Tuna will decrease, the color of Tuna to be rather dark, the texture of tuna become better, the

smell of smoke even more stinging (day 0) but will decrease during storage. The longer the soaking time of Tuna in liquid smoke the total microbial will decrease, increasing the water content, texture and aroma of the Tuna increasingly not favored panelists but the color of Tuna increasingly favored panelists. Based on the best treatment recapitulation data obtained K3 concentration of liquid smoke (45%; 55%) and L1 soaking time (15 minutes) gives the best value to the value of organoleptic, the water content and the TPC.

Keywords: Liquid smoke, redistillate, *Euthynnus affinis*, coconut fiber