

QUALITY ASSESSMENT OF DEEP FRIED NILE *TILAPIA (Oreochromis niloticus)* IN COCONUT AND PALM OIL

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Tilapia is one of the commonly produced inland fish type in Sri Lanka and Nile *tilapia* is the major type in commercial cultivation. Deep frying is popular among Sri Lankan consumers over other processing methods of *tilapia*. However the information on effect of different oils use or deep-frying is not adequate. Thus the present study was conducted to compare the moisture, ash, fat, peroxide value (PV), and free fatty acid (FFA) of Nile Tilapia, deep-fried in coconut and palm oil. The experiment was arranged in Complete Randomized Design with four replicates where raw fish was used as the control. Moisture, ash, fat and FFA were significantly ($p < 0.05$) different in deep fried filets compare to raw fish. Moisture content and crude fat content were significantly ($p < 0.05$) different between the fish fillets fried with both palm (44.08% and 17.25% respectively) and coconut oil (49.05% and 13.51% respectively) as well as in raw fish fillet (80.03% and 1.69% respectively). Ash content of deep fried fish filets using coconut oil (1.581%) and palm oil (1.685%) was significantly higher than that of the raw fish (1.293%). The PV were insignificant between treatments. FFA of deep fried fish fillets using coconut oil (0.812% as oleic) and palm oil (0.833% as oleic) was significantly lower than that of the raw fish (1.403% as oleic). The results highlighted that the absorption of oil during deep frying of Nile *tilapia* is significantly lower in coconut oil than that of the palm oil. However, FFA and PV were not affected by the oil type during deep of Nile *Tilapia*.

Keywords: Deep-fat frying, Fish fillets, Nile *tilapia*, Oil uptake, Oxidation