

Fat uptake evaluation in fried fish fillet by using scanning electron microscopy (SEM).

ABSTRACT

The aim of this study was to investigate the effects of breading materials and two different frying oils on the fat up-take in the fish fillets during frying process. Breaded and non-breaded black pomfret (*Parastromateus niger*) fillets were fried in sunflower oil and palm olein. Fat content by Soxhlet method and scanning electron microscopy (SEM) was studied. Results from Soxhlet method showed that fat content in the non-breaded fried fillets was significantly ($P < 0.05$) higher than breaded fillets. This was confirmed by the SEM. Observations from the SEM micrographs showed that some gas cell can be seen in the non-breaded fried fillets. Presence of these cells in the non-breaded fillets resulted in the higher fat uptake than that of fish muscle fillets. Observation by the SEM also showed that the surfaces of the non-breaded fried fillets highly deformed. However, this deformation in the breaded fried fillets was significantly lower.

Keyword: SEM; Fish fat content; Black pomfret; Breaded fish.