

Onuma Kamdaeng 2006: Fish mixed with Algae Tofu. Master of Home Economics,  
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The purpose of this study was to develop the nutritional quality of tofu and produce more varieties of products for the consumers. The experiment found that the proper ingredients of fish mixed with algae tofu composed of mackerel 75 g, algae 25 g, egg albumin powder 7.5 g, potato starch 5 g,  $MgSO_4$  25 g, salt 7.5 g, pepper 2.5 g, sugar 5 g and water 2,500 g. The white tofu was cut into fish shapes with a fish mould and fried in an electrical deep fat fryer at 150°C for 1 minute. The color of fish mixed with algae tofu was whitish yellow, and soft. The color values of  $L^*$ ,  $a^*$ , and  $b^*$  were 54.21, 4.03 and 17.30, respectively. Water activity was 1.000, and gel strength (N) was 1.799. The chemical composition of raw tofu for moisture, carbohydrate, protein, fat, ash, crude fiber, and calcium was 75.37%, 6.06%, 15.46%, 1.42%, 1.61%, 1.99% and 1.56 mg, respectively. Those of fried tofu were 60.00, 15.46, 17.98, 2.24, 2.53, 1.79% and 1.38 mg, respectively. The total plate count, yeast and mold were less than 10 CFU/g. By means of LCT (Central Location Test) with 100 consumers, the product was accepted at level of slight to moderate preference. The study of the shelf-life demonstrated that tofu product could be kept in the vacuum plastic bag at refrigerator temperature for 4 days and kept in the freezer for 6 days while the fried tofu product could be kept in the refrigerator for 12 days and kept in the freezer for 27 days. The production cost of product was 5 baht/serving portion or 50g.



Student's signature



Thesis Advisor's signature

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