

Angkana Rattanapan 2006: Quality Improvement and Storage of Fermented Fish
Product: Pla-som. Master of Science (Fishery Products), Major Field: Fishery Products,
Department of Fishery Products. Thesis Advisor: Assitant Professor Mayuree Chaiyawat,
M.S. 154 pages.
ISBN 974-16-1783-6

The consumer survey on fermented fish (Pla-som) had been conducted in Nakornsrihammarat province. It was found that 52 % of the 100 participants from various group of occupations completed primary to secondary education level, 41 % earned rather low income of less than 5,000 baht per month, 93 % used to consume Pla-som. 76.34 % of 93 participants like the product 90.14 % of 71 participants like the delicious taste. 55.91 % consumed Pla-som once in a while. However, the participants commented that the product was difficult to buy. 100 % consumed as fried product, 54.9 % of the product was prepared at home and 69.90 % preferred the product packed in plastic bag. The appropriate process for Pla-som from milkfish was studied. The results showed that the fish should be butterfly-filletted, salted with 6 % salt, mixed with 20 % to grind roasted rice and 1 % sugar (w/w of fish), packed in PP boxes then wrapped with shrink film and fermented. The sensory evaluation scores of fried Pla-som after fermented for 8 days were high and the soft bone could be eaten. The appropriate fermentation time for milkfish, threadfin bream and Clarias catfish was 8 days while that of common silver barb was 12 days. The preference test by 30 panelists on packaging indicated that all preferred PP box to PP and PA/LDPE bags. Total bacterial and yeast and mold counts of the finished product were 10^7 and $< 10^4$ CFU/g. Lactic acid bacteria found were *Lactobacillus plantarum*, *L. brevis* and *Carnobacterium divergens*. Pathogenic bacteria were not found. Shelf life study of Pla-som after fermented for 8 days showed that it could be kept for not longer than 20 days at room temperature and more than 56 days at 4°C and -18°C. The cost of production of Pla-som varied on the cost of fish. The raw material cost of Pla-som from milkfish, threadfin bream, Clarias catfish and common silver barb were 26.85, 29.30, 19.64 and 24.28 baht per box of 400 g, respectively.

Student's signature

Thesis Advisor's signature

____ / ____ / ____

