

NOTES

Determination of Optimal Spice Combinations for *Sardinella albella* Fish sauce

Trash fishes that constitute about 40 percent of the total marine fish landings are now - a - days mostly direrted for the production of fish meal and organic manure. Conversion of trash fish protein into readily consumable product with long shelf life, adopting less tedious and low cost technology, would go a long way to augument the national economy. In this context, marine food formed by slow fermentation process deserves scientific and economic concern. Fish sauce is a fermented product obtained from the slow-digestion of a mixture of fish and salt in the ratio 3:1 resulting in a clear liquid with a characteristic fermented flavour. Its colour ranges from straw yellow to amber.

Sardinella albella, lesser sardine, was mixed with salt in the ratio 3:1 and allowed to ferment for a period of 6 months. The pH was measured using a digital pH meter. Total nitrogen was estimated by the AOAC method (1975).

Fish sauce is commonly prepared by fermenting 3 parts of fish in one part of salt (Baens - Arcega, 1970; Crisan & Sands, 1975; Dougan & Howard, 1975; Yech & Merican, 1978). Rao (1967) found that 100kg fish could yield 90 kg fish sauce. During the present study also, the yield of fish sauce was 90% from *S. albella*. pH is one of the important factors deciding the quality of fish sauce. Howard & Dougan (1975) reported a pH range of 5.6 - 6.1 for various fish sauces. Fujii & Sakaii (1984) reported a maximum pH of 6.2 for quality fish sauce. In the present study, the pH of the fish sauce prepared was 5.8. The protein content of the fish sauce was 9.3g per 100ml.

To produce a sauce with local taste a mixture of spices were added to the sauce (Table 1). Among the various spice mixtures the one with 4% chilly powder was found acceptable by the taste panel consisting of 10 members.

Table 1. Spices used per 100 ml of fish sauce

Chilly Power g	Cardamom, g	Cloves, g	Anise g	Cinnamon, g	Garlic g	Lemon Juice ml
12.00	1.50	1.60	6.00	1.50	2.00	18.00
10.00	1.80	1.40	4.00	2.50	1.00	12.00
8.00	1.40	1.80	10.00	1.60	1.50	16.00
4.00	1.20	1.10	1.00	1.00	1.00	8.00
3.00	1.30	1.70	3.00	1.20	2.30	4.00

Reference

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