

PREPARATION OF OYSTER SAUCE BY USING PINEAPPLE AND PAPAYA JUICE

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Oyster sauce is a kind of seafood prepared from the hydrolyzate of the Oyster (Prunes and Raksakulthai, 1992). Sri Lanka imports Oyster sauce from Singapore at high price. Present study was carried out to produce low cost Oyster sauce by using pineapple and papaya juice as proteolytic agents.

Shucked Oyster meat (100g) was mixed with 20g of salt and added different concentrations of pineapple and papaya juice (20%, 25% and 30%) and incubated at 55 °C. After 5 days each sample was analyzed for total nitrogen content (AOAC method). Then the best treatments were selected. Selected samples were kept at 55 °C. Total nitrogen content of the filtrate as well as pH, color, Brix value, moisture %, dry matter % and total yield % were measured up to 20 days at 5 day intervals. Ten days and twenty days fermented, 30% pineapple treated samples were used to prepare 3 Oyster sauce formulæ. Sensory evaluation was done for new 3 products and 2 commercial Oyster sauce samples using a 7-point hedonic scale. Proximate analysis was done for 2 commercial samples and new best Oyster sauce samples AOAC (1995). Keeping quality of the final Oyster sauce was evaluated by taking total bacteria plate count, TBA value. Data were analyzed using SAS and Friedman test in MINITAB computer software.

The 30% pineapple treated sample was the best treatment to hydrolyze Oyster meat at 55°C. Within 10 days, 30% pineapple treated sample gave higher total filtrate yield and nitrogen content. There was no difference between Oyster sauces, prepared from ten and twenty days of fermentation. Final product contained more protein, ash, dry matter and total soluble solid (Brix value) than the commercial products. But, viscosity of new Oyster sauce was less than the other two commercial Oyster sauces. The new sauce can be kept at least six weeks in airtight glass bottle without bacterial spoilage. Oyster sauce can be produced locally by using locally available materials to possess similar sensory characters of the imported product currently available in the market.