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Editors
Kumara Mahipala MBP & Kodithuwakku S

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DEVELOPMENT OF A FISH SAUSAGE USING SMALL FISH (*Anchoviella commersonii*)

K.M.G.D. Chamila¹, H.W. Cyril¹, N. Lalantha² and A. Kalubovila²

¹Dept. of Animal Science, Faculty of Agriculture, University of Peradeniya.

²Keells Food Products Ltd, Ekala, Ja-ela.

INTRODUCTION

The trend for fish protein increasing over the meat proteins because of its low fat content. Diversification of fish sausage from different types of fish will be more important in upgrading the fish consumption, especially for small fish, which have diminished demand in the fresh fish market due to their inconvenience. This study has been designed for development of a fish sausage which is a convenient and value added product using small pelagic fish available in the fresh fish market for the benefit of the local consumers who are reluctant to buy small fish.

MATERIALS AND METHODS

The product development was conducted at Keells Food Products Ltd. Preliminary trials were conducted to determine the effective time needed to soften the bones of sprat (*Anchoviella commersonii*) under the pressure of 15 lb/in² and cooking loss was measured. Three trials were conducted by using three levels of binder component. Sappara (*Xiphias gladius*) in the commercial fish sausage was replaced by 25%, 50%, 75% and 100% of pressure cooked sprat. All the other ingredients were the same in every trial. After finalizing the best trial three sausage samples were prepared. Commercial fish sausage was taken as the control. Organoleptic characters were tested using 30 untrained panelists. Keeping quality characters (pH, TBA value, water holding capacity, tenderness and colour) of samples were measured (A.O.A.C., 1995) for one and half month storage period at -18°C at one week interval. Proximate analysis (A.O.A.C., 1995) was done for the samples. The data were analyzed by using MINITAB and SAS statistical packages.

RESULTS AND DISCUSSION

According to the preliminary trials, 30 minutes were needed to soften the bones of sprat and the cooking loss was 30% during the pressure cooking. According to the Friedman test, treatment A (i.e. 25% pressure cooked sprat added), B (i.e. 50% pressure cooked sprat added) and control (D) showed the highest estimated median value for appearance. Treatment A showed the highest estimated median values for aroma and taste. Control showed the highest median value for colour. For texture control and treatment A showed the highest estimated median value. pH values of all sausage samples were