ABSTRACT

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UTILIZATION OF ANCHOVY FISH FLOUR AS SOURCE OF CALCIUM AND PHOSPHORUS ON MAKING OF CRACKERS BISCUIT

Fish flour is a fish based dried product which is made by using drying and grinding method and it has high protein content but low in mineral content. The objectives of this research is to determine the best method in producing fish flour in high calcium and phosphorus content, and to determine the best concentration of fortification the fish flour in the formula for making crackers. In this research, anchovy (Stolephorus sp) was used for producing fish flour which has high mineral content especially, calcium and phosphorus. The process involving various deproteinization and defatting technique. The variation of deproteinization consist of heating in temperature of 100°C and soaking in NaOH 1.5N in 65°C for 2 hours. The defatting technique consist of 1 and 2 times extraction with ethanol 96% for 20 minutes. The result showed that the treatment of soaking in NaOH 1.5 N in 65°C for 2 hours and 1 times of defatting produced anchovy fish flour in high calcium and phosphorus content. The best anchovy fish flour was added to the formula of crackers production with various concentration of fortification (0%, 2%, 4%, 6%, and 8% in w/w dough). The result show that the most of panelists had chosen the crackers with 2% fortification as the best concentration of fortification in the scoring test. Crackers with 2% fortification was better in physical characteristics, moisture and protein content than commercial crackers.

Key words: Fish flour, Stolephorus sp, fortification, crackers

References: 43 (1977-2010)