ABSTRACT

Evelyn Djundjung (03420070052)

UTILIZATION OF SMALL SHRIMP FLOUR AS SOURCES OF CALCIUM AND PHOSPHORUS IN MAKING OF BISCUIT

(xxi + 161 pages : 33 figures; 7 tables; 63 appendixes)

Small shrimp has high mineral content, especially calcium and phosphorus. In this research, small shrimp flour was made by deproteinization process with variation of concentration and extraction time. The objectives of this research are to determine the best concentration of NaOH and the best dripping time to produce the highest calcium and phosphorus small shrimp flour and to study the effect of fortification small shrimp flour on the characteristic of chemical, physical, and organoleptic biscuit. The variation concentration consist of 2, 3, and 4% NaOH, and the variation extraction time consist of 1, 2, and 3 hours extraction. The result showed that small shrimp flour with combination 3% concentration NaOH and 3 hours extraction time had the highest calcium and phosphorus contents. In this research, small shrimp flour was being added to the formula on making biscuit. Biscuit was made by five variation fortification concentrations of small shrimp flour, which were 0, 2, 4, 6, and 8% per dough weigh. The result of this research showed that biscuit with 2% fortification small shrimp flour had good acceptance by panelists in scoring test and physical characteristic. In comparison test with commercial biscuit, the result showed that biscuit with fortification 2% small shrimp flour was as good as the commercial biscuit.

Key words: Biscuit, calcium, deproteinization, fortification, NaOH, phosphorus, small shrimp

References: 73 (1992-2010)