RINGKASAN

PUTRI KHAIRANI, Fortifikasi Tepung Cangkang Siput Gonggong (*Laevistrombus turturella*) dalam Pembuatan Biskuit Berkalsium Tinggi. Dibimbing oleh LILY VIRULY dan JUMSURIZAL.

Siput gonggong merupakan biota laut khas Kepulauan Riau yang dikenal sebagai ikon daerah, namun pemanfaatannya masih terfokus pada bagian daging sehingga cangkangnya berpotensi menjadi limbah. Cangkang siput gonggong dapat diolah menjadi tepung untuk fortifikasi biskuit sebagai sumber kalsium. Penelitian ini bertujuan untuk menentukan suhu optimum pembuatan tepung cangkang siput gonggong (*L. turturella*) serta mengetahui karakteristik kimia, tingkat penerimaan dan kontribusi kalsium biskuit terhadap Angka Kecukupan Gizi (AKG). Analisis data dilakukan secara deskriptif kuantitatif. Hasil penelitian menunjukkan bahwa suhu 500℃ menghasilkan rendemen tertinggi sebesar 32,09% dan ditetapkan sebagai suhu terbaik dengan kandungan logam berat timbal (Pb) dan merkuri (Hg) pada tepung cangkang siput gonggong tidak terdeteksi. Biskuit dengan penambahan 4 g tepung cangkang siput gonggong mengandung kadar kalsium sebesar 0,93% dengan nilai proksimat meliputi kadar abu 3,78%, kadar air 2,32%, kadar lemak 29,49%. Kadar protein 7,59% dan karbohidrat 56,83%. Uji hedonik menunjukkan biskuit dapat diterima oleh panelis dengan tingkat kesukaan terhadap warna, aroma, rasa dan tekstur. Kandungan kalsium biskuit sebesar 0,92% atau 922,77 mg/100g setara dengan 46,14 mg per 5 g biskuit dan memberikan kontribusi sebesar 4,61% terhadap AKG kalsium kelompok usia dewasa.

Kata Kunci: biskuit, cangkang siput, gonggong, kalsium

SUMMARY

PUTRI KHAIRANI, Fortification of Gonggong Snail (*Laevistrombus turturella*) Shell Flour in High-Calcium Biskuit. Supervised by LILY VIRULY dan JUMSURIZAL.

Gonggong snails are marine organisms native to the Riau Islands and are known as regional icons but the utilization is still focused on their meat, so their shells have the potential to become waste. Gonggong snail shells can be processed into flour to enrich biscuits as a source of calcium. This research aims to determine the optimum temperature for the production of gonggong snail shell flour (*L. turturella*) and to determine the chemical characteristics, acceptance level, and calcium contribution of biscuits. Data analysis was carried out using a quantitative descriptive method. The results showed that a temperature of 500℃ produced the highest yield of 32.09% and was determined as the best temperature, without detecting any heavy metals lead (Pb) and mercury (Hg) in gonggong snail shell flour. Biscuits with the addition of 4 g of gonggong snail shell flour contained 0.93% calcium with proximate values including 3.78% ash, 2.32% moisture, and 29.49% fat. The protein content was 7.59% and the carbohydrate content was 56.83%. Hedonic testing showed that the biscuits were acceptable to panelists in terms of color, aroma, taste, and texture. The calcium content of the biscuits was 0.92% or 922.77 mg/100g, equivalent to 46.14 mg per 5g of biscuits.

Keywords: *biscuit, calcium, gonggong, sea snails*