ANALISIS VITAMIN A, SERAT KASAR, DAN ANTIOKSIDAN BISKUIT TEPUNG CAMPURAN (TEPUNG UBI UNGU, DAUN KELOR, DAN IKAN TERI) SEBAGAI PANGAN FUNGSIONAL BERBASIS PANGAN LOKAL

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INTISARI

Latar belakang : Dewasa ini, masyarakat semakin peduli pada pentingnya aspek fungsi fungsional makanan bagi tubuh. Pangan lokal sangat potensial untuk meningkatkan kandungan gizi produk pangan sekaligus sebagai alternatif pengganti tepung terigu. Di sisi lain, stress oksidatif, kurangnya asupan serat, dan KVA masih menjadi masalah di masyarakat. Biskuit tepung campuran dari bahan ubi ungu, daun kelor, dan ikan teri diharapkan dapat menjadi solusi. Oleh karena itu, dibutuhkan analisis kadar vitamin A, serat kasar, dan aktivitas antioksidan pada biskuit ini.

Tujuan : Mengetahui kadar vitamin A, serat kasar, dan antioksidan pada biskuit tepung campuran (ubi ungu, daun kelor, dan ikan teri) dalam beberapa formulasi.

Metode Penelitian : Penelitian ini adalah penelitian eksperimental dengan Rancangan Acak Lengkap satu faktorial. Tiga kelompok perlakuan adalah biskuit dengan perbandingan tepung campuran : tepung terigu sebesar 25:75 (formula A), 50:50 (formula B), dan 75:25 (formula C). Analisis vitamin A menggunakan metode spektrofotometri UV-Vis, analisis serat kasar menggunakan metode gravimetri, dan analisis antioksidan menggunakan metode DPPH.

Hasil Penelitian : Kadar vitamin A pada formula A, B, dan C berturut-turut adalah 1,76 mg/100 g, formula B 2,79 mg/100 g, dan formula C 2,83 mg/100 g. Kadar serat kasar berturut-turut sebesar 1,29 %, 2,08%, dan 2,72%. Kadar antioksidan berturut-turut sebesar 32,51%, 50,65%, dan 57,66%. Kadar vitamin A setiap formulasi tidak berbeda signifikan (p=0,050), sedangkan kadar serat kasar (p=0,001) dan aktivitas antioksidan (p=0,010) setiap formulasi berbeda signifikan.

Kesimpulan : Kadar serat kasar dan antioksidan pada ketiga formulasi berbeda signifikan, sedangkan kadar vitamin A tidak berbeda signifikan.

Kata Kunci : Vitamin A, Serat Kasar, Antioksidan, Ubi Ungu, Daun Kelor, Ikan Teri, Biskuit, Pangan Fungsional

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ANALYSIS OF VITAMIN A, CRUDE FIBER, AND ANTIOXIDANTS IN COMPOSITE FLOUR BISCUITS (PURPLE SWEET POTATO, MORINGA LEAF, AND ANCHOVY FLOURS) AS FUNCTIONAL FOOD BASED ON LOCAL FOOD

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ABSTRACT

Background : Nowadays, people are increasingly concerned with the importance of the functional aspects of food for the body. Local food has the potential to increase the nutritional content of food products, as well as an alternative to substitute wheat flour. On the other hand, oxidative stress, lack of fiber intake, and lack of vitamin A are still problems in society. Composite flour biscuits made of purple sweet potato, moringa leaves, and anchovies are expected to be a solution. Therefore, it is necessary to analyze the levels of vitamin A, crude fiber, and antioxidant activity in these biscuits.

Objective : To determine the levels of vitamin A, crude fiber, and antioxidants in composite flour biscuits (purple sweet potato, moringa leaf, and anchovy) in several formulations**.**

Methods : This study was an experimental research with one factorial completely randomized design. Three treatment groups were biscuits with a ratio of composite flour : wheat flour of 25:75 (formula A), 50:50 (formula B), and 75:25 (formula C). Analysis of vitamin A used the UV-Vis spectrophotometric method, crude fiber analysis used the gravimetric method, and antioxidant analysis used the DPPH method.

Result : The levels of vitamin A in formula A, B, and C respectively were 3.52 mg / 100 g, 5.58 mg / 100 g, and 5.66 mg / 100 g. The crude fiber content respectively were 1.29%, 2.08%, and 2.72%,. The antioxidant levels respectively were 32.51%, 50.65%, and 57.66%. Vitamin A levels in each formulation were not significantly different ($p = 0.050$), while crude fiber content ($p = 0.001$) and antioxidant activity ($p = 0.010$) were significantly different for each formulation.

Conclusion : Crude fiber and antioxidant levels in the three formulations were significantly different, while vitamin A levels were not significantly different.

Keywords : Vitamin A, Crude Fiber, Antioxidants, Purple Sweet Potato, Moringa Leaf, Anchovy, Biscuits, Functional Foods

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