

**PENGEMBANGAN PRODUK COOKIES DARI TEPUNG UBI JALAR KUNING  
(*Ipomoea batatas* L.) DAN TEPUNG KULIT BUAH KAKAO (*Theobroma cacao* L.)**

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**ABSTRAK**

Pangan fungsional merupakan pangan olahan yang memiliki fungsi fisiologis. Hasil pertanian di Indonesia yang berpotensi sebagai sumber pangan fungsional yaitu pada komoditas ubi jalar kuning. Untuk memaksimalkan hasil pertanian, pembuatan tepung ubi jalar kuning merupakan alternatif pengembangan bahan pangan setengah jadi (*intermediate product*) sebagai substitusi tepung terigu pada pembuatan *cookies*. Pengembangan produk *cookies* berdasar pada tingginya minat konsumsi *cookies* tahun 2020 yaitu  $\pm 22,834$  ons/kapita/tahun. Pengembangan produk berdasar pada *cookies* komersial umumnya memiliki kandungan serat yang relatif rendah dan tidak mengandung antioksidan. Untuk menambah kandungan serat pada *cookies* dapat menggunakan bahan baku tepung ubi jalar kuning. Kegiatan penelitian menggunakan metode RAL satu faktor dengan 4 taraf perlakuan, yaitu 1 *cookies* kontrol dan 3 *cookies* berbagai formula. Hasil uji hedonik diperoleh formula terpilih *cookies* kontrol (0% tepung ubi jalar kuning, 0% tepung kulit buah kakao, 100% tepung terigu) dan *cookies* C2 (70% tepung ubi jalar kuning, 10% tepung kulit buah kakao, dan 20% tepung terigu). Karakteristik fisik *cookies* C2 memiliki warna lebih coklat dengan nilai warna akrobatik putih sebesar 47,04. Tekstur *cookies* C2 cenderung lebih padat dan renyah dengan perolehan nilai *firmness* lebih tinggi yaitu sebesar 31,02 N. Hasil pengujian kimia diperoleh kadar air *cookies* C2 lebih rendah yaitu sebesar 4,38% dan kadar abu *cookies* 2,86%. Hasil tersebut menunjukkan bahwa *cookies* C2 memiliki tekstur yang padat dan renyah daripada *cookies* kontrol. Analisis kimia serat *cookies* diperoleh hasil formula C2 memiliki kandungan serat pangan total tinggi yaitu sebesar 5,31% dengan kandungan aktivitas antioksidan sangat lemah. Proses pemanasan kulit buah kakao berpotensi rusaknya kandungan antioksidan dan formula tepung yang kurang seimbang menyebabkan kandungan aktivitas antioksidan *cookies* sangat rendah. Berdasarkan hasil pengujian beda nyata dan signifikan menggunakan ANOVA *Kruskal Wallis*, *Mann Whitney Advanced Test*, dan *T-Test* diperoleh perbedaan signifikan dari masing-masing pengujian fisik, proksimat, dan kimia *cookies*.

**Kata kunci:** *cookies*, tepung ubi jalar kuning, tepung kulit buah kakao, serat pangan total, aktivitas antioksidan.

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## PRODUCT DEVELOPMENT OF COOKIES FROM YELLOW SWEET POTATO FLOUR (*Ipomoea batatas* L.) AND COCOA FRUIT FLOUR (*Theobroma cacao* L.)

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### ABSTRACT

*Functional food is processed food that has a physiological function. Agricultural products in Indonesia that have the potential as a functional food source are yellow sweet potatoes. To maximize agricultural yields, the production of yellow sweet potato flour is an alternative for the development of intermediate foodstuffs product as a substitute for wheat flour in making cookies. Cookie product development based on the high interest in consumption of cookies in 2020, namely  $\pm 22,834$  ounces/capita/year. Product development based on cookies commercial products generally have relatively low fiber content and do not contain antioxidants. To increase the fiber content in cookies, can use yellow sweet potato flour as raw material. The research activity used the one-factor RAL method with 4 treatment levels, namely 1 cookie control and 3 cookies various formulas. The results of the hedonic test obtained the selected formula of cookies control (0% yellow sweet potato flour, 0% cocoa pod flour, 100% wheat flour) and cookies C2 (70% yellow sweet potato flour, 10% cocoa pod flour, and 20% wheat flour). Physical characteristics of cookies C2 has a browner color with a white acrobatic color value of 47,04. Cookies texture C2 tends to be denser and crunchier with firmness values higher that is equal to 31,02 N. Chemical test results the moisture content of the cookies was obtained C2 is lower at 4,38% and the ash content of cookies 2,86%. These results indicate that cookies C2 has a denser and crunchier texture than cookies control. Chemical analysis of cookie fiber The results showed that formula C2 had a high total food fiber content of 5,31% with very weak antioxidant activity. The process of heating the cocoa pod skin has the potential to damage the antioxidant content and the unbalanced flour formula causes the antioxidant activity of the cookies very low. Based on the results of testing for significant and significant differences using Kruskal's Wallis ANOVA, Mann Whitney Advanced Test, and T-Test significant differences were obtained from each of the physical, proximate, and chemical tests of cookies.*

**Keywords:** cookies, sweet potato yellow flour, skin fruit cocoa flour, fibre total food, activity antioxidants.

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