

ABSTRACT

FORMULATION OF BREADFRUIT (*Artocarpus altilis*) AND PURPLE SWEET POTATO (*Ipomoea batatas* L.) FLOURS ON THE SENSORY CHARACTERISTICS OF PIE CRUST

By

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Pie is a type of pastry product consisting of a crust and filling, typically presented in various shapes such as sheets, rounds, bowls, or lotus flowers. Pie crust made from breadfruit flour and purple sweet potato flour can serve as a gluten-free food alternative that appeals to consumers, while also contributing to reducing dependence on wheat flour imports and promoting the use of local food resources. This study aimed to evaluate the effect of breadfruit and purple sweet potato flour formulations on the sensory characteristics of pie crust, and to determine the optimal formulation that produces the best sensory attributes according to the De Garmo method. The research was conducted using a Completely Randomized Design (CRD) with one factor, namely the ratio of breadfruit flour to purple sweet potato flour. The treatments consisted of seven levels: T0 (100% wheat flour as control), and combinations of breadfruit flour and purple sweet potato flour as T1 (90:10), T2 (80:20), T3 (70:30), T4 (60:40), T5 (50:50), and T6 (40:60), each with four replications. The results showed that the flour formulation had a highly significant effect on aroma, taste, color, texture, and overall acceptance of the pie crust. The pie crust that demonstrated the best sensory characteristics according to the De Garmo method was treatment T5 (a formulation of 50% breadfruit flour and 50% purple sweet potato flour), with sensory scores of aroma 4.00 (liked), taste 4.05 (liked), color 4.13 (liked), texture 4.03 (liked), and overall acceptance 4.00 (liked). The pie crust also exhibited a moisture content of 4.37%, protein content of 3.92%, ash content of 6.83%, antioxidant activity of 52.1%, and these values met the standards of SNI 01-2973-1992 for pie crusts.

Keywords: pie crust, breadfruit flour, purple sweet potato flour

ABSTRAK

FORMULASI TEPUNG SUKUN (*Artocarpus altilis*) DAN UBI JALAR UNGU (*Ipomea batatas* L) TERHADAP KARAKTERISTIK SENSORI KULIT PIE

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Pie termasuk produk pastry yang tersusun dari kulit dan isian yang umumnya memiliki beragam bentuk seperti lembaran, bulat, mangkuk, dan bunga teratai. Kulit pie tepung sukun dan ubi jalar ungu dapat menjadi salah satu alternatif olahan pangan bebas gluten yang digemari masyarakat, sekaligus berkontribusi dalam mengurangi ketergantungan pada impor tepung terigu serta mendukung pemanfaatan sumber pangan lokal. Penelitian ini bertujuan untuk mengetahui pengaruh formulasi tepung sukun dan ubi jalar ungu terhadap karakteristik sensori kulit pie serta mendapatkan formulasi tepung sukun dan ubi jalar ungu yang menghasilkan kulit pie dengan karakteristik sensori terbaik sesuai metode De Garmo. Penelitian disusun menggunakan Rancangan Acak Kelompok Lengkap (RAKL) dengan satu faktor yaitu perbandingan tepung sukun dan ubi jalar ungu. Perlakuan pada penelitian ini menggunakan 7 taraf yaitu T0 sebagai kontrol 100 % tepung terigu serta perbandingan tepung sukun dan tepung ubi jalar ungu terdiri dari T1 (90:10), T2 (80:20), T3 (70:30), T4 (60:40), T5 (50:50), dan T6 (40:60) dalam 4 ulangan. Hasil penelitian menunjukkan bahwa formulasi tepung sukun dan ubi jalar ungu berpengaruh sangat nyata terhadap parameter aroma, rasa, warna, tekstur, dan penerimaan keseluruhan kulit pie. Kulit pie yang menghasilkan karakteristik sensori terbaik sesuai metode De Garmo yaitu pada perlakuan T5 (formulasi tepung sukun 50% dan tepung ubi jalar ungu 50%) dengan deskripsi nilai aroma 4,00 (suka), rasa 4,05 (suka), warna 4,13 (suka), tekstur 4,03 (suka), penerimaan keseluruhan 4,00 (suka) dengan kadar air 4,37%, kadar protein 3,92%, kadar abu 6,83%, kadar antioksidan 52,1% dan nilai ini memenuhi standar SNI 01-2973-1992 kulit pie.

Kata Kunci: kulit pie, tepung sukun, tepung ubi jalar ungu