

SIFAT FISIK, KIMIAWI, SENSORIS, DAN AKTIVITAS ANTIOKSIDAN MINUMAN FORMULA SERBUK KACANG HIJAU (*Vigna radiata* (L.) W) DENGAN PENAMBAHAN BERAS MERAH (*Oryza nivara*) SEBAGAI SUMBER ANTIOKSIDAN

INTISARI

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Minuman formula serbuk kacang hijau merupakan produk hasil pengembangan lebih lanjut dari penelitian minuman sari kacang hijau *ready to drink* sebelumnya. Tingginya kesadaran masyarakat akan pentingnya kesehatan menyebabkan perubahan pola pikir masyarakat tentang pangan yang tidak hanya memenuhi selera makan namun mempertimbangkan gizi dan kesehatan, misalnya pengembangan produk pangan fungsional yang kaya akan antioksidan. Dalam penelitian ini dikembangkan minuman serbuk kacang hijau dengan penambahan beras merah sebagai sumber antioksidan.

Penelitian menggunakan Rancangan Acak Lengkap dengan variasi konsentrasi beras merah 0%, 15%, 30%, 45% dan 60%. Parameter sifat fisik yang diamati meliputi total padatan terlarut, viskositas, pH, warna, *water holding capacity*, waktu larut. Kemudian, dianalisis sifat sensoris dengan uji hedonik dan uji penerimaan kuantitatif dengan atribut sensoris (rasa, warna, aroma, *aftertaste*, *body* dan keseluruhan) dan diperoleh hasil formula terpilih yang dilakukan analisis uji kimia (kadar air, abu, protein, lemak, dan karbohidrat), dan aktivitas antioksidan.

Hasil penelitian menunjukkan pada formula beras merah terpilih 30% adalah pH 6,59, total padatan 11,09%, viskositas 5,35cP, WHC 195,50%(wb), warna serbuk 73,47L*, warna seduh 44,13L*, waktu larut 38,53 detik (air panas) dan 38,46 detik (air dingin), kadar air 4,85%, kadar abu 1,73%db, kadar protein 12,86%db, kadar lemak 0,72%db, kadar karbohidrat 84,68%db, aktivitas antioksidan 72,43%, dan keseluruhan 3,86 (cenderung suka) pada uji hedonik.

Kata Kunci: kacang hijau, beras merah, antioksidan, konsentrasi, minuman serbuk.

**PHYSICAL, CHEMICAL, SENSORY, AND ANTIOXIDANT ACTIVITY
CHARACTERISTICS OF MUNG BEAN (*Vigna radiata* (L.) W) BASED
POWDER DRINK FORMULA WITH THE ADDITION OF RED RICE
(*Oryza nivara*) AS ANTIOXIDANT SOURCE**

ABSTRACT

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Mung bean based powder drink formula is a product of further development from previous research on mung milk (*ready to drink*). The high public awareness of the importance of health also changes mindset people about food that not only meets the appetite but also consider about nutrition and health, for example the development of functional food product that are rich in antioxidants. In this research that can develop a mung bean based powder drink formula with the addition of red rice as antioxidant source.

The research using a Completely Randomized Design (RAL) with the variations in the concentration of red rice 0%, 15%, 30%, 45% and 60%. The physical properties parameters observed were total dissolved solids, viscosity, pH, color, water holding capacity, dissolution time. Then, sensory analysis was carried out by hedonic and quantitative acceptance test with sensory attributes (taste, color, aroma, aftertaste, body and overall) and the results of the selected formula obtained were carried out by chemical analysis (water content, ash, protein, fat, and carbohydrate), and antioxidant activity.

The results showed that the selected formula red rice 30% was pH 6.59, total solids 11.09%, viscosity 5.35 cP, WHC 195.50(%wb), powder color 73.47L*, brew color 44.13L*, time dissolved 38.53 seconds (hot water) and 38.46 seconds (cold water), water content 4.85%, ash content 1.73% db, protein content 12.86% db, fat content 0.72% db, level carbohydrates 84.68% db, antioxidant activities 72.43%, and overall 3,86 (mostly like) for Hedonic Test.

Keywords: mung bean, red rice, antioxidant, concentration, powder drink.