

INTISARI

Beras pratanak terfortifikasi kromium dan magnesium telah dikembangkan dan memiliki indeks glikemik yang rendah, namun kurang disukai karena memiliki aroma sekam padi. Oleh karena itu, dilakukan penambahan ekstrak kayu manis pada proses pembuatan beras pratanak untuk memperbaiki sifat fisik dan kimia beras pratanak. Keberhasilan dalam penambahan ekstrak kayu manis dipengaruhi oleh suhu perendaman dan konsentrasi ekstrak kayu manis. Tujuan penelitian ini adalah untuk mengetahui pengaruh suhu perendaman dan konsentrasi ekstrak kayu manis terhadap sifat fisik dan kimia beras pratanak terfortifikasi kromium dan magnesium.

Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) pola faktorial dengan 2 faktor perlakuan. Faktor pertama ialah perbedaan suhu perendaman dengan level 60°C, 65°C dan 70°C. Faktor kedua ialah konsentrasi ekstrak kayu manis dengan level 0%, 5%, 10% dan 15%. Analisis yang dilakukan meliputi sifat fisik (tekstur, warna) dan sifat kimia (kadar air, amilosa, pati dan gula). Hasil yang diperoleh dilakukan analisa varian pada tingkat kepercayaan 95%. Apabila terdapat beda nyata dilanjut dengan uji *Duncan Multiple Range Test*.

Hasil penelitian menunjukkan bahwa perlakuan suhu perendaman dan konsentrasi ekstrak kayu manis berpengaruh nyata terhadap sifat fisik dan kimia beras dan nasi pratanak terfortifikasi kromium dan magnesium. Suhu perendaman 65 °C dengan konsentrasi ekstrak kayu manis 5% menghasilkan beras pratanak yang memiliki kekerasan 211,95 N, *lightness* 62,99, *color value* 5,25, kadar air 51,89% (wb), kadar amilosa 25,42% (db), kadar pati 48,45% (db), dan kadar gula 0,55% (db). Pada perlakuan tersebut menghasilkan beras dengan nilai kekerasan 805,08 N, *lightness* 82,30, *color value* 8,78, kadar air 11,34% (wb), kadar amilosa 23,97% (db), kadar pati 76,34% (db), dan kadar gula 0,69% (db).

Kata Kunci : Beras pratanak, ekstrak kayu manis, perendaman

EFFECT OF SOAKING TEMPERATURE AND CONCENTRATION OF CINNAMON EXTRACT ON PHYSICAL AND CHEMICAL PROPERTIES OF CHROMIUM AND MAGNESIUM FORTIFIED PARBOILED RICE

ABSTRACT

Parboiled rice fortified chromium and magnesium has been developed and has a low glycemic index, but is less liked because it has a rice husk scent. Therefore, it is done by adding cinnamon extracts to the parboiled rice process to improve the physical and chemical properties of parboiled rice. Success in the addition of cinnamon extracts is influenced by the soaking temperature and concentration of cinnamon extracts. The purpose of this research is to valuate the effect of soaking and the concentration of cinnamon extracts on the physical and chemical properties of parboiled rice fortified chromium and magnesium.

This research was carried out using a completely randomized design (CRD) with two factors. Factor 1 is temperature soaking of 60 °C, 65 °C and 70 °C. Factor 2 is the concentration of cinnamon extract of 0%, 5%, 10% and 15%. The analysis done includes physical characteristics (texture, color) and chemical (moisture content, amylose, starch and sugar). The results obtained do analysis of variant on a confidence level of 95%. If there is a real difference the next analysis is with test Duncan Multiple Range Test.

The results showed that temperature soaking and concentration of cinnamon extracts were significant effect on the physical and chemical properties of parboiled rice fortified rice chromium and magnesium. The temperature soaking at 65 °C and cinnamon extract at 5% produce parboiled rice which has a hardness of 211.95 N, lightness 62.99, color value 5.25, water content 51.89% (wb), amylose content of 21.26% (db), starch content of 48.45% (db), and sugar content of 0.55% (db). In the form of rice has a hardness value of 805.08 N, lightness 82.30, color value 8.78, water content of 11.34% (wb), amylose content of 30.74% (db), starch content of 62.24% (db), and sugar content of 0.69% (db).

Keywords: parboiled rice, cinnamon extract, soaking