

**PENGARUH SUHU PERENDAMAN DAN KONSENTRASI EKSTRAK
KAYU MANIS TERHADAP KADAR PATI TAHAN CERNA,
FORTIFIKAN, INDEKS GLIKEMIK DAN TINGKAT KESUKAAN
BERAS PRATANAK TERFORTIFIKASI KROMIUM DAN MAGNESIUM**

INTISARI

Ketersediaan nasi pratanak berindeks glikemik rendah dengan citarasa yang dapat diterima menjadi isu penting bagi penderita diabetes terutama di Indonesia yang menjadikan nasi sebagai makanan pokok. Kurangnya asupan mikronutrien seperti kromium dan magnesium juga menjadi salah satu pemicu diabetes. Suhu perendaman mempengaruhi hidrasi gabah dan adsorpsi kromium dan magnesium. Penambahan ekstrak kayu manis dimaksudkan untuk meningkatkan citarasa beras pratanak. Tujuan penelitian ini adalah untuk menghasilkan produk beras pratanak berindeks glikemik rendah, tinggi pati tahan cerna dan disukai konsumen.

Penelitian ini dikerjakan menggunakan rancangan acak lengkap (RAL) dengan dua faktor, yaitu variasi suhu perendaman gabah (60, 65 dan 70 °C) dan variasi konsentrasi penambahan ekstrak kayu manis (0, 5, 10 dan 15%). Perendaman dilakukan selama 2,5 jam kemudian dilakukan pendinginan pada suhu 0°C selama 12 jam, pengeringan menggunakan *cabinet dryer* pada suhu 50°C dan digiling. Analisis yang dilakukan ialah kadar pati tahan cerna, fortifikan, indeks glikemik beras pratanak terfortifikasi kromium dan magnesium dan tingkat kesukaannya oleh panelis.

Berdasarkan hasil penelitian menunjukkan bahwa variasi suhu perendaman gabah dan konsentrasi penambahan ekstrak kayu manis mempengaruhi kadar pati tahan cerna, fortifikan, indeks glikemik dan tingkat kesukaan beras pratanak yang dihasilkan. Produk yang disukai ialah produk dengan perlakuan suhu perendaman 65°C dan konsentrasi penambahan ekstrak kayu manis 10% yang menghasilkan kadar pati tahan cerna 13,82%, kadar kromium 47 µg/kg dan magnesium 437 mg/kg, dan indeks glikemik 30,62.

Kata kunci: beras pratanak, kayu manis, indeks glikemik, pati tahan cerna

EFFECT OF SOAKING TEMPERATURE AND CINNAMON EXTRACT CONCENTRATION ON RESISTANT STARCH, FORTIFICANT CONTENT, GLYCEMIC INDEX AND ACCEPTIBILITY OF CHROMIUM AND MAGNESIUM FORTIFIED PARBOILED RICE

ABSTRACT

The availability of low glycemic indexed rice with flavor that can be accepted is an important issue for diabetics, especially in Indonesia, which consumes rice as staple food. The lack of intake of micronutrients such as chromium and magnesium is also one of the triggers for diabetes. Soaking temperature has influence the grain hydration and chromium and magnesium adsorption. Cinnamon extract additional aim to improve the parboiled rice taste. The purpose of this study was to obtain low glycemic index, high resistant starch and consumer favored rice.

This research was carried out using a completely randomized design (CRD) with two factors, namely variations in grain soaking temperature (60, 65 and 70 °C) and variations in the adding concentration of cinnamon extract (0, 5, 10 and 15%). Soaking was carried out for 2.5 hours and then cooled at 0°C for 12 hours, drying using a cabinet dryer at 50°C and grinding. The analysis carried out was resistant starch content, fortification, glycemic index fortified parboiled rice with chromium and magnesium and the level of preference by panelists.

Based on the results of the study showed that variations in the temperature of soaking grain and the concentration of addition of cinnamon extract influenced the levels of resistant starch, fortifiant, glycemic index and the preferred level of parboiled rice produced. The very liked product chosen was with 65 °C soaking temperature treatment and added by 10% cinnamon extract which produced 13,82% level of resistant starch, 47 µg/kg chromium and 437 mg/kg magnesium, and the glycemic index was 30,62.

Keywords: cinnamon, index glycemic, parboiled rice, resistant starch