

PENGARUH CARA PENDINGINAN DAN VARIETAS UBI KAYU TERHADAP SIFAT KIMIA, FISIK DAN TINGKAT KESUKAAN GROWOL KERING

INTISARI

Growol merupakan makanan tradisional di Kulon Progo, DIY berbahan baku ubi kayu dan diolah melalui tahapan fermentasi. Setiap varietas ubi kayu memiliki kadar pati dan amilosa yang bervariasi, sehingga growol kering yang diolah akan memiliki sifat kimia dan sifat fisik (warna dan tekstur). Hasil analisis kadar air (%bb), pati (%db) dan amilosa (%db) pada ubi kayu Ketan berurutan adalah $60,22 \pm 1,59$, $63,22 \pm 2,96$ dan $46,99 \pm 3,69$, sedangkan pada ubi kayu varietas Mentega berurutan adalah $64,63 \pm 6,06$, $52,43 \pm 10,38$ dan $46,97 \pm 8,13$. Cara pendinginan diketahui mampu mempengaruhi tingkat pembentukan *resistant starch type 3* akibat proses retrogradasi pati tergelatinisasi pada bahan, diketahui bahwa amilosa lebih mudah mengalami retrogradasi dibandingkan amilopektin. Penelitian ini bertujuan untuk menghasilkan growol kering dengan sifat fisik dan kimia yang baik dan disukai. Rancangan percobaan yang digunakan dalam penelitian ini adalah rancangan acak lengkap dengan perlakuan varietas ubi kayu Ketan dan ubi kayu varietas Mentega dengan cara pendinginan pada suhu ruang (20°C - 25°C) dan suhu refrigerasi (4°C - 5°C). Hasil penelitian menunjukkan bahwa cara pendinginan dan varietas ubi kayu dapat mempengaruhi sifat kimiak dan fisik pada growol kering yang dihasilkan. Semakin tinggi kadar amilosa pada bahan baku, maka growol kering yang dihasilkan akan semakin keras tetapi tingkat *cohesiveness* nya akan semakin rendah. Warna growol kering akan mengikuti warna ubi kayu yang digunakan sebagai bahan baku. Growol kering yang terbaik adalah growol kering Ketan dengan pendinginan suhu refrigerasi, hasil analisis proksimat (kadar air, protein, lemak, abu dan karbohidrat *by difference*) growol kering terbaik berurutan adalah 12,57%, 1,38%, 0,42%, 0,05% dan 85,58%.

Kata kunci: Growol, ubi kayu, pendinginan, varietas

THE EFFECT OF COOLING METHODS AND CASSAVA VARIETIES ON THE CHEMICAL AND PHYSICAL PROPERTIES AND PREFERENCE LEVEL OF DRIED-GROWOL

ABSTRACT

Growol is a traditional food from Kulon Progo, DIY. It is made from cassava and processed through fermentation stages. Each variety of cassava has varying levels of starch and amylose so that the dried growol which is processed will be different chemically and physically (color and texture). The results of the analysis are moisture (%bb), starch (%db) and amylose (%db) in *Ketan* cassava in sequences were 60.22 ± 1.59 , 63.22 ± 2.96 and 46.99 ± 3.69 , whereas, for *Mentega* cassava varieties, the sequences were 64.63 ± 6.06 , 52.43 ± 10.38 and 46.97 ± 8.13 . The Cooling methods is known to be able to affect the order level of resistant starch type 3 due to the starch gelatinization of the retrogradation process in the material. It is known that amylose is easier to have retrogradation than amylopectin. This study aims to produce dried growol with good physical and chemical properties and to be preferred. The experimental design that was used in this study was a random design which was completed with the treatment of *Ketan* cassava varieties and *Mentega* cassava varieties by using the cooling methods at room temperature (20°C - 25°C) and refrigeration temperature (4°C - 5°C). The results of this study showed that the cooling methods and cassava varieties could affect the chemical and physical features of the dried growol that will be produced. The higher the amylose level in the raw material, the harder texture of the dried growol will be produced, however, the cohesiveness level will be lower. The color of the dried growol will follow the color of the cassava that was used as raw material. The best dried growol was the *ketan* dried growol with refrigeration cooling method, the proximate results analysis of the best dried growol in order are (moisture, protein, fat, ash, and carbohydrate by difference) 12.57%, 1.38%, 0.42%, 0.05% and 85.58%.

Keywords: Growol, cassava, cooling, varieties