

Abstrak

FORMULASI MINUMAN BIJI NANGKA (*Artocarpus Heteropyllus*) DIPERKAYA KALSIMUM DARI TEPUNG CANGKANG TELUR AYAM RAS SEBAGAI MINUMAN ALTERNATIF BAGI LANSIA

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Latar Belakang: Konsumsi kalsium yang memadai dapat menghambat osteoporosis. Penelitian ini bertujuan mengetahui proporsi tepung biji nangka dan tepung cangkang telur, persentase gula kelapa terhadap minuman biji nangka yang disukai dengan perlakuan terbaik yaitu kalsium, protein dan gula total.

Metode: Penelitian menggunakan Rancangan Acak Kelompok (RAK) dengan 2 faktor yaitu proporsi tepung biji nangka : tepung cangkang telur ayam ras (A) sebesar 2,5% : 7,5% (A1); 5% : 5% (A2); 7,5% : 2,5% (A3), persentase gula kelapa (B) sebesar 5% (B1); 7,5% (B2); 10% (B3), didapat 9 kombinasi perlakuan diulang 3x diperoleh 27 unit percobaan. Variabel sensori dianalisis menggunakan Uji *Friedman*, jika berbeda signifikan dilanjut dengan Uji Banding Ganda 5% dan produk terbaik menggunakan uji Indeks Efektifitas.

Hasil: Kombinasi perlakuan proporsi tepung biji nangka : tepung cangkang telur dengan persentase gula kelapa memberikan pengaruh berbeda terhadap sifat sensori warna, aroma, tekstur, rasa dan kesukaan. Perlakuan terbaik minuman biji nangka dengan kadar kalsium sebesar 8,3 mg.

Kesimpulan: Perlakuan yang menghasilkan produk minuman biji nangka terbaik yaitu proporsi tepung biji nangka dan tepung cangkang telur 5% : 5% dan persentase gula kelapa 10% (A2B3) dengan sifat sensori warna coklat; aroma tidak amis; tekstur tidak kental; rasa manis dan tingkat kesukaan pada taraf suka. Minuman biji nangka pada perlakuan terbaik diuji kalsium, protein dan gula total secara berturut-turut nilainya yaitu : 0,83%, 1,18%, 12,55% dan *perserving size* minuman biji nangka sebanyak 1.205 ml.

Kata Kunci: Lansia, osteoporosis, kalsium, biji nangka, tepung cangkang telur

ABSTRACT

THE FORMULATION OF JACKFRUIT SEEDS (*Artocarpus Heteropyllus*) BEVERAGE CALCIUM ENRICHED FROM RAS CHICKEN EGGSHELL FLOUR AS AN ALTERNATIVE BEVERAGE FOR ELDERLY

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Background: Consuming sufficient calcium can hamper osteoporosis. This research aims to figure out the proportion of jackfruit seed flour and eggshell flour, the percentage of coconut sugar with the best treatment, namely calcium, protein and total sugar.

Methodology: The method used in this research is *Randomized Block Design* (RBD) with 2 factors, in which the proportion of jackfruit seed flour: Ras chicken eggshell flour (A) is 2,5% : 7,5% (A1); 5% :5% (A2); 7,5% : 2,5% (A3), the percentage of coconut sugar (B) is 5% (B1); 7,5% (B2); 10% (B3), obtained 9 treatment combinations, repeated 3 times, and obtained 27 experimental units. Sensory variables are analyzed using *Friedman* test, if it is significantly different, it will be continued by Double Appeal Test 5% and the best product uses test effectiveness index.

Result: The treatment combination of jackfruit seed flour proportion: eggshell flour with the percentage of coconut sugar gives a different influence to the sensory properties of color, aroma, texture, taste and preference. Best treatment of jackfruit drink with calcium content of 8.3 mg.

Conclusion: the treatment producing the best jackfruit seed beverage shows the proportion of jackfruit seed flour and eggshell flour is 5% : 5% and the percentage of coconut sugar is 10% (A2B3) with the result of sensory properties are brown; not fishy aroma; non-thick texture; sweetness and the level of preference is on likes. Jackfruit seed drinks in the best treatment are tested for calcium, protein and total sugar in a row, which is: 0,83%, 1,18%, 12,55% and the preserving size of the jackfruit seeds beverage is 1. 205 ml.

Keywords: elderly, osteoporosis, calcium, jackfruit seed, eggshell flour