

ABSTRACT

SENSORICAL, PHYSICAL, AND CHEMICAL PROPERTIES OF FRUIT LEATHER JANTEN BANANA (*Musa eumusa*) WITH CARROT (*Daucus carota*) SUBSTITUTION

By

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Fruit leather is fruit flesh food product that has been crushed and dried, later formed into a uniform thin sheet, has a consistency and taste that is specific to the type of fruits used. This research aims to produce the best fruit leather and has an attractive color and contains beta carotene that is good for health. The study was arranged non-factorially in the Randomized Complete Block Design (RCBD) with one factor and four repeats. The factor was the formulation of bananas:carrots consisting of six levels namely (P1) 100%:0%, (P2) 90%:10%, (P3) 80%:20%, (P4) 70%:30%, (P5) 60%:40%, and (P6) 50%:50%. The data were tested the similarity of the variety with the Bartlett test and the persistence of the data with the Tuckey test, then the data were analyzed by variance to determine the influence between treatments. If there is a real influence, the data is further analyzed with the Least Significant Difference Test (LSD) at a level of 5%. The results showed that the substitution treatment of carrots affected overall sensory reception, color, and taste of fruit leather. The best treatment was in the substitution of carrots 50% (P6) with overall acceptance characteristics 3.77 (neutral - like), flavor 3.59 (neutral - like), aroma 2.98 (dislike - neutral), texture 3.30 (somewhat plastic - plastic), color 3.90 (orange brown - orange), moisture content 15.36%, ash content 6.81%, protein 2.85%, fat 0.23%, crude fiber 1.26%, total sugar 49.24%, total carotene 15.80 mg, acidity level 4.24 (acidic pH), and tensile strength of 0.21705 MPa.

Keywords: banana (var. Janten), carrots, fruit leather.

ABSTRAK

KARAKTERISTIK SIFAT SENSORI, FISIK, DAN KIMIA *FRUIT LEATHER* PISANG JANTEN (*Musa eumusa*) DENGAN SUBSTITUSI WORTEL (*Daucus carota*)

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Fruit leather merupakan produk makanan daging buah yang telah dihancurkan kemudian dibentuk sebuah lembaran tipis yang seragam, lalu dikeringkan, memiliki konsistensi dan rasa yang spesifik sesuai jenis buah-buahan yang digunakan. Penelitian ini bertujuan untuk menghasilkan *fruit leather* terbaik serta memiliki warna yang menarik dan mengandung beta karoten yang baik untuk kesehatan. Penelitian ini disusun secara non faktorial dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan satu faktor dan empat ulangan. Faktor tersebut adalah formulasi pisang:wortel yang terdiri atas enam taraf yaitu (P1) 100%:0%, (P2) 90%:10%, (P3) 80%:20%, (P4) 70%:30%, (P5) 60%:40%, dan (P6) 50%:50%. Data hasil penelitian diuji kesamaan ragam dengan uji Bartlett dan kemenambahan data dengan uji Tukey, selanjutnya data dianalisis sidik ragam untuk mengetahui pengaruh antar perlakuan. Apabila terdapat pengaruh nyata, data dianalisis lebih lanjut dengan Uji Beda Nyata Terkecil (BNT) pada taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan substitusi wortel mempengaruhi penerimaan sensori keseluruhan, warna, dan rasa *fruit leather*. Perlakuan terbaik terdapat pada substitusi wortel 50% (P6) dengan karakteristik penerimaan keseluruhan 3,77 (netral – suka), rasa 3,59 (netral – suka), aroma 2,98 (tidak suka – netral), tekstur 3,30 (agak plastis – plastis), warna 3,90 (jingga kecoklatan – jingga), kadar air 15,36%, kadar abu 6,81%, protein 2,85%, lemak 0,23%, serat kasar 1,26%, gula total 49,24%, total karoten 15,80 mg , derajat keasaman 4,24 (pH asam), dan kuat tarik 0,21705 MPa.

Kata kunci: *fruit leather*, pisang janten, wortel.