

INTISARI

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Saat ini, jeruk Pacitan atau jeruk *Baby Pacitan* adalah buah yang sedang populer. Jeruk *Baby Pacitan* lebih sering dikonsumsi dalam bentuk jus segar atau sirup. Jumlah limbah jeruk yang dihasilkan dari proses pembuatan minuman segar dan sirup cukup tinggi. *Pomace* merupakan bagian sisa daging buah dan biji yang tidak digunakan dalam pembuatan sari buah jeruk. *Pomace* masih mengandung komponen bioaktif. *Pomace* sering diaplikasikan dalam bentuk bubuk yang dikeringkan. Tujuan dari penelitian ini adalah mengetahui pengaruh suhu dan waktu pengeringan dengan *cabinet dryer* terhadap sifat fisikokimia dan komponen bioaktif dalam *pomace* jeruk *Baby Pacitan* untuk mendapatkan *pomace* kering dengan sifat fisikokimia dan komponen bioaktif yang baik. Pada penelitian ini, *pomace* jeruk *Baby Pacitan* dikeringkan menggunakan *cabinet dryer* pada suhu 55, 65, dan 75 °C dengan lama pengeringan 10, 11, dan 12 jam. Total fenolik, total β – karoten, vitamin C, pH, dan beberapa sifat fisikokimia dari *pomace* jeruk *Baby Pacitan* diuji dalam penelitian ini.

Penelitian ini menunjukkan bahwa suhu pengeringan dan waktu pengeringan mempengaruhi kandungan air, nilai *hue*, *lightness*, dan kemampuan pengikatan minyak (OHC) pada *pomace* jeruk *Baby Pacitan*. Perbedaan waktu pengeringan hanya berpengaruh terhadap komponen bioaktif (total β - karoten, vitamin C, total fenolik), intensitas warna (nilai *chroma*), *lightness*, kemampuan pengikatan air (WHC) dan *swelling ability*, sedangkan suhu dan waktu pengeringan tidak berpengaruh terhadap nilai pH. Dari penelitian ini, suhu dan waktu pengeringan yang dapat dipilih untuk mengeringkan *pomace* adalah pada variasi suhu 65 °C dan waktu pengeringan 12 jam. Pada suhu 65 °C dengan waktu pengeringan 12 jam, *pomace* jeruk *Baby Pacitan* memiliki karakteristik nilai WHC 4,54 g air/ g berat sampel; nilai OHC 1,68 g minyak/ g berat sampel ; nilai *lightness* 70,08; nilai *chroma* 30,40; nilai *hue* 76,04°; *swelling ability* 7,70 g/g ; pH 4,02; total β – karoten 1,68 mg/g berat kering; vitamin C 32,43 mg/100 g berat kering; dan total fenolik 0,43 g GAE/100 g berat kering.

Kata kunci : jeruk *Baby Pacitan*, *pomace*, pengeringan, *cabinet dryer*, komponen bioaktif, sifat fisikokimia, vitamin C, total β – karoten, total fenolik, derajat keasaman (pH), *lightness*, nilai *hue*, nilai *chroma*, *water holding capacity*, *oil holding capacity*, *swelling ability*, kadar air

ABSTRACT

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Currently, Pacitan orange, which is known as Baby Pacitan orange is one of popular fruit. Baby Pacitan orange is frequently consumed in the form of fresh juice or syrup. Citrus wastes resulted from fresh drink and syrup processing are quite high. Pomace is part of the remainder of flesh fruit and seeds are not used in the processing of citrus fruit juices. Pomace still contains bioactive components. Pomace is often applied in the form of dried powder. The purpose of this research is to know the effect of temperature and drying time with cabinet dryer on physicochemical properties and bioactive components in Baby Pacitan orange pomace for gaining good physicochemical and nutrimental properties in Baby Pacitan orange pomace powder. On this research, Baby Pacitan orange pomace was dried using cabinet dryer at temperature 55, 65, and 75 °C with drying time 10, 11, and 12 hours. Total phenolic compounds, total β - carotene, vitamin C, pH, and several physicochemical properties of Baby Pacitan orange pomace were evaluated.

The experimental result showed that drying temperature and drying time affect moisture content, hue value, lightness, and oil holding capacity (OHC) in pomace Baby Pacitan orange. Bioactive components (total β -carotene, vitamin C, total phenolic), color, intensity (chroma values), lightness, water holding capacity (WHC) and swelling ability were only affected by difference of drying time. The degree of acidity (pH) did not affected by difference of drying temperature and drying time. From this research, the temperature and drying time can be selected for drying pomace is drying temperature at 65 °C and drying time for 12 hours. The characteristic of pomace Baby Pacitan orange which was dried at 65 °C for 12 hours is WHC value at 4,54 g water/g sample weight; OHC value at 1,68 g oil/g sample weight; lightness at 70,08; chroma value at 30,40; hue value at 76,04°; swelling ability at 7,70 g/g; pH at 4,02; total β – carotene at 1,68 mg/g dry weight; vitamin C at 32,43 mg/100 g dry weight; and total phenolic at 0,43 g GAE/100 g dry weight.

Keywords: Baby Pacitan orange, pomace, drying, cabinet dryer, bioactive compound, physicochemical properties, vitamin C, total β – carotene, total phenolic compound, the degree of acidity (pH), hue, chroma, lightness, water holding capacity, oil holding capacity, swelling ability, moisture content