

# PENGARUH PENAMBAHAN MALTODEKSTRIN TERHADAP KARAKTERISTIK MINUMAN SERBUK INSTAN KAYU SECANG (*Caesalpinia sappan*, L.)

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## ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui pengaruh penambahan maltodekstrin terhadap karakteristik minuman serbuk instan kayu secang, dan untuk mengetahui jumlah maltodekstrin yang terbaik terhadap karakteristik minuman serbuk instan kayu secang yang disukai panelis. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan (perbedaan persentase penambahan maltodekstrin 10%, 13%, 16%, 19%, dan 22%) dan 3 ulangan. Data dianalisa secara statistika menggunakan *Analysis of Variance* (ANOVA) dan dilanjutkan dengan *Duncan's New Multiple Range Test* (DNMRT) pada taraf nyata 5%. Pengamatan pada minuman serbuk instan kayu secang yang dihasilkan terdiri dari: 1) pengamatan sifat fisik produk berupa rendemen, waktu larut, bagian tidak larut, dan warna; 2) analisis kimia produk berupa kadar air, kadar abu, aktivitas antioksidan, dan total polifenol; 3) uji organoleptik; dan 4) uji mikrobiologi. Penelitian ini menunjukkan bahwa perlakuan penambahan maltodekstrin terhadap minuman serbuk instan kayu secang berpengaruh terhadap analisa bagian tak larut air, kadar abu, aktivitas antioksidan, total polifenol, rendemen, analisa waktu larut, dan tidak berpengaruh terhadap kadar air minuman serbuk instan kayu secang. Karakteristik minuman serbuk instan kayu secang terbaik berdasarkan hasil uji organoleptik adalah dengan penambahan maltodekstrin 10% (perlakuan A) dengan tingkat kesukaan terhadap rasa 3,76, aroma 3,53, warna 4,00. Minuman serbuk instan kayu secang pada perlakuan A ini memiliki kadar air 4,28%, kadar abu 0,30%, aktivitas antioksidan 21,88%, dan kandungan total polifenol 0,24 mgGAE/100g.

*Kata kunci* – kayu secang, brazilein, minuman instan, penambahan maltodekstrin, *spray dryer*

# Effect of Maltodextrin Addition Towards Characteristics of Sappanwood (*Caesalpinia sappan*, L.) Instant Beverage

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## ABSTRACT

This research was aimed to determine the effect of maltodextrin addition towards instant beverage powder characteristics of sappanwood, and to determine the best amount of maltodextrin towards instant beverage powder characteristics of sappanwood which favored by panelists. This research used Completely Randomized Designed (CRD) consist of 5 treatments (different in percentage of maltodextrin addition that were 10%, 13%, 16%, 19%, and 22%) and 3 replications. Data were analyzed statistically with Analysis of Variance (ANOVA) and were continued with Duncan's New Multiple Range Test (DNMRT) at 5% significance level. Observations on sappanwood's instant beverage powder were consist of: 1) observations of physical properties of products such as yields, soluble time, insoluble parts, and colour; 2) analysis of chemical products such as moisture content, ash content, antioxidant activity, and total polyphenols; 3) organoleptic test; and 4) microbiological test. This research determined that the treatment of maltodextrin addition towards sappanwood's instant beverage powder affected to water insoluble part, ash content, antioxidant activity, total polyphenols, yields, analysis of soluble time, and did not affected to moisture content of sappanwood's instant beverage powder. The best characteristics of sappanwood's instant beverage powder based on the results of organoleptic test was by addition of 10% maltodextrin (treatment A) with preference level towards taste of 3,76, 3,53 flavour, and 4,00 colour. Sappanwood's instant beverage powder on this treatment A has a moisture content of 4,28%, ash content of 0,30%, 21,88% antioxidant activity and total polyphenol 0,24 mgGAE/100g.

**Keyword** – sappanwood, brazilein, instant beverage, maltodextrin addition, spray dryer