

**PENGARUH PROPORSI KARAGENAN DAN TEPUNG PORANG TERHADAP MUTU
MARSHMALLOW BUAH KERSEN (*Muntingia calabura*)
[The Effect of Carrageenan and Porang Flour Proportion on The Quality of
Jamaican Cherries (*Muntingia calabura*) Marshmallow]**

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ABSTRACT

*Marshmallow is a soft candy usually made using gelatin as a gelling agent. However, the production of gelatin mostly from non-halal materials, so an alternative gelling agent is needed to reduce the use of gelatin. This study aimed to determine the effect of carrageenan and porang flour proportion on the quality of Jamaican cherries (*Muntingia calabura*) marshmallows. This study used an experimental method with Randomized Block Design with a single factor, namely the proportion of gelatin: carrageenan: porang flour which consisted of 7 treatments that were 4.5%; 2%:0%:2.5%; 2%:0.5%:2%; 2%:1%:1.5%; 2%:1.5%:1%; 2%:2%:0.5%; and 2%:2.5%:0%. Each treatment was made into 3 replications thus there were obtain 21 experimental units. Observational data were analyzed using analysis of variance with a significance level of 5% using Co-Stat. If the data were significantly different, they were further analyzed using the Honestly Significant Difference test at the same significant level. The results showed that the treatments gave significantly different effects on water content, ash content, gel strength, taste (scoring and hedonic method), texture (scoring and hedonic method), and color (hedonic method). However, they did not give significantly different effects on the reducing sugar content, lightness, °hue, and aroma (scoring and hedonic method). The proportion of 2% gelatin : 0.5% carrageenan : 2% porang flour was the best treatment which produced Jamaican cherries marshmallows with 17.65% water content; 0.41% ash content; 24.67% reducing sugar content; 379.25 g.cm gel strength; 81.42 lightness; 74,297° hue; aroma (not fishy and flavored with Jamaican cherry); taste (strong sweet taste); texture (slightly chewy), and color which were liked slightly by the panelists.*

Keywords: carrageenan, Jamaican cherry, marshmallow, porang flour

ABSTRAK

*Marshmallow merupakan permen lunak yang biasanya dibuat menggunakan gelatin sebagai gelling agent. Namun, produksi gelatin sebagian besar menggunakan bahan baku tidak halal sehingga diperlukan gelling agent lain untuk mengurangi penggunaan gelatin. Penelitian ini bertujuan untuk mengetahui pengaruh proporsi karagenan dan tepung porang terhadap mutu marshmallow buah kersen (*Muntingia calabura*). Penelitian ini menggunakan metode eksperimental dengan Rancangan Acak Kelompok (RAK) faktor tunggal yaitu proporsi gelatin : karagenan : tepung porang yang terdiri atas 7 perlakuan yaitu 4,5%; 2%:0%:2,5%; 2%:0,5%:2%; 2%:1%:1,5%; 2%:1,5%:1%; 2%:2%: 0,5%; dan 2%:2,5%:0%. Setiap perlakuan dibuat 3 kali ulangan sehingga terdapat 21 unit percobaan. Data hasil pengamatan dianalisis menggunakan analisis keragaman dengan taraf nyata 5% menggunakan Co-Stat. Data yang berbeda nyata diuji lanjut dengan uji Beda Nyata Jujur pada taraf nyata yang sama. Hasil penelitian menunjukkan bahwa perlakuan proporsi karagenan dan tepung porang pada marshmallow buah kersen memberikan pengaruh yang berbeda nyata terhadap kadar air, kadar abu, kekuatan gel, rasa dan tekstur yang diuji secara skoring dan hedonik, dan warna yang diuji secara hedonik, namun tidak berbeda nyata terhadap kadar gula reduksi, lightness, °hue, dan aroma yang diuji secara skoring dan hedonik. Perlakuan proporsi gelatin 2% : karagenan 0,5% : tepung porang 2% merupakan perlakuan terbaik yang menghasilkan marshmallow buah kersen dengan kadar air 17,65%; kadar abu 0,41%; kadar gula reduksi 24,67%; kekuatan gel 379,25 g.cm; lightness 81,42; °hue 74,297; aroma (tidak amis dan beraroma buah kersen), rasa (rasa manis kuat), tekstur (agak kenyal), dan warna yang agak disukai oleh panelis.*

Kata kunci: buah kersen, karagenan, marshmallow, tepung porang