

ABSTRACT

THE EFFECT OF CARRAGEENAN CONCENTRATION ON THE ACCEPTANCE SENSORY OF GOTU KOLA LEAF *JELLY CANDY* (*Centella asiatica L. urban*)

By

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Gotu kola leaf (*Centella asiatica L. urban*) is a wild plant that grows in many places such as plantations and house yards and that is easily found and has efficiency, but has not been widely used as a basis for *jelly candy*. Gotu kola contains bioactive compounds such as *asiaticoside* in the form of *glycosides* used in traditional medicine, has a bitter taste because of the presence of *vellarine*. The purpose of the research to determine the concentration of carrageenan that produce gotu kola *jelly candy* with the best sensory acceptance. The research arranged in a Complete Randomized Block Design (RCBD) by a single factor that is carrageenan concentration on six grades with 4 repetition. The research of each experimental unit used 100 ml of gotu kola leaf extract and the addition of 75 mg (2%, 4%, 6%, 8%, 10% and 12%) solids. Observations in this research include sensory properties (color, texture, taste). The best *jelly candy* from sensory testing results are then carried out chemical tests including water content, ash content, reducing sugar levels and antioxidant activity. The data analysis of variance and further tests with

the Least Significant Difference (LSD) at the level 5%. The results showed that the best treatment was found in 8% of carrageenan concentration that produces color gotu kola leaf *jelly* candy with score of 3.25 (greenish brown), a texture with score of 3.65 (springy) and a taste with score of 3.65 (sweet). *Jelly* candy from gotu kola leaf has the water content of 9.70%, ash content of 0.43%, reduction of sugar content of 0.71%, acidity (pH) of 5.58 and antioxidant content of 43.34% which appropriate with ISO 3547.2-2008.

Keywords: carrageenan, gotu kola leaves, *jelly* candy

ABSTRAK

PENGARUH KONSENTRASI KARAGENAN TERHADAP PENERIMAAN SENSORI PERMEN *JELLY* DAUN PEGAGAN (*Centella asiatica L. urban*)

Oleh

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Daun pegagan (*Centella asiatica L. urban*) merupakan tanaman liar yang tumbuh di berbagai tempat seperti di perkebunan dan pekarangan rumah serta mudah ditemukan yang memiliki khasiat, tetapi belum banyak dimanfaatkan sebagai bahan dasar permen *jelly*. Pegagan mengandung senyawa bioaktif seperti *asiatikosida* berupa *glikosida* digunakan dalam obat tradisional, memiliki rasa pahit karena adanya zat *vellarine*. Penelitian bertujuan untuk menentukan konsentrasi karagenan yang menghasilkan permen *jelly* daun pegagan dengan penerimaan sensori terbaik. Penelitian disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan satu faktor yaitu konsentrasi karagenan pada 6 perlakuan dengan 4 ulangan. Penelitian ini setiap unit percobaan menggunakan bahan baku ekstrak daun pegagan sebanyak 100 ml dan penambahan padatan karagenan 75 mg (2%, 4%, 6%, 8%, 10% dan 12%). Pengamatan pada penelitian ini meliputi sifat sensori (warna, tekstur, rasa). Permen *jelly* terbaik dari hasil

pengujian sensori kemudian dilakukan pengujian kimia meliputi kadar air, kadar abu, kadar gula reduksi dan aktivitas antioksidan. Data dianalisis sidik ragam dan uji lanjut dengan Beda Nyata Terkecil (BNT) pada taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan terbaik adalah konsentrasi karagenan 8% yang menghasilkan permen *jelly* dengan warna 3,25 (coklat kehijauan), tekstur 3,65 (kenyal) dan rasa 3,65 (manis). Permen *jelly* daun pegagan memiliki kadar air sebesar 9.70%, kadar abu sebesar 0.43%, kadar gula reduksi sebesar 0.71%, derajat keasaman (pH) sebesar 5.58 dan kadar antioksidan sebesar 43.34% yang dihasilkan memenuhi SNI 3547-2-2008.

Kata kunci : daun pegagan, karagenan, permen *jelly*