

ABSTRACT

EFFECT OF CARAGENAN AND ARABIC GUM FORMULATION ON CHEMICAL PROPERTIES, FLEXIBILITY LEVEL AND SENSORY PROPERTIES OF PUMPKIN JELLY CANDY (*Cucurbita moschata*)

By

OCTAVIA SOPHA ANGGRAINI

This study aims to determine the effect of carrageenan and gum arabic formulations on chemical properties, level of elasticity, and sensory properties of pumpkin jelly candy and to obtain the right formulation between carrageenan and gum arabic to produce jelly candy with chemical properties, level of elasticity, and sensory properties. best according to SNI 3574-2-2008 regarding jelly candy. The study was arranged in a Completely Randomized Block Design (RAKL) with a single factor and 4 replications. The treatments in this study were the ratio of carrageenan and gum arabic 5%:0% (K1), 4%:1% (K2), 3%:2% (K3), 2%:3% (K4), 1%:4 % (K5). The data obtained were analyzed for homogeneity with the Barlett test and additional data were tested with the Tuckey test, then the data were analyzed for variance (ANARA) to determine the effect between treatments. If there is a significant effect, the data will be analyzed further with the Least Significant Difference Test (BNT) at the 5% level. The results showed that the formulation of carrageenan and gum arabic significantly affected the chemical properties, level of elasticity, and sensory properties of pumpkin jelly candy. The best jelly candy is the K3 treatment (3% carrageenan: 2% arabic gum) which produces a texture score of 3.80 (chewy), color with a score of 3.97 (deep yellow), and taste with a score of 4.11 (likes), and has a moisture content of 7.66%, an ash content of 0.99%, a reducing sugar content of 14.31%, a sucrose content of 27,7 %, and an antioxidant activity of 49.27%..

Keywords: carrageenan, arabic gum, jelly candy, pumpkin

ABSTRAK

PENGARUH FORMULASI KARAGENAN DAN GUM ARAB TERHADAP SIFAT KIMIA, TINGKAT KEKENYALAN DAN SIFAT SENSORI PERMEN JELLY LABU KUNING (*Cucurbita moschata*)

Oleh

OCTAVIA SOPHA ANGGRAINI

Penelitian ini bertujuan mengetahui pengaruh formulasi karagenan dan gum arab terhadap sifat kimia, tingkat kekenyalan, dan sifat sensori permen jelly labu kuning dan mendapatkan formulasi karagenan dan gum arab yang menghasilkan permen jelly dengan sifat kimia, tingkat kekenyalan, dan sifat sensori terbaik sesuai SNI 3574-2-2008 tentang permen jelly. Penelitian disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan faktor tunggal dan 4 kali ulangan. Perlakuan pada penelitian ini adalah perbandingan karagenan dan gum arab 5%:0% (K1), 4%:1% (K2), 3%:2% (K3), 2%:3% (K4), 1%:4% (K5). Data yang diperoleh dianalisis kehomogenannya dengan uji Barlett dan kementerian data diuji dengan uji Tuckey, selanjutnya data dianalisis sidik ragam (ANARA) untuk mengetahui pengaruh antar perlakuan. Apabila terdapat pengaruh yang nyata, data dianalisis lebih lanjut dengan Uji Beda Nyata Terkecil (BNT) pada taraf 5%. Hasil penelitian menunjukkan bahwa formulasi karagenan dan gum arab berpengaruh nyata terhadap sifat kimia, tingkat kekenyalan, dan sifat sensori permen jelly labu kuning. Permen jelly terbaik yaitu perlakuan K3 (karagenan 3%: gum arab 2%) yang menghasilkan skor tekstur 3,80 (kenyal), warna dengan skor 3,97 (kuning pekat), dan rasa dengan skor 4,11 (suka), serta memiliki kadar air sebesar 7,66%, kadar abu sebesar 0,99%, kadar gula reduksi sebesar 14,31%, kadar sukrosa sebesar 27,7%, dan aktivitas antioksidan sebesar 49,27%.

Kata kunci: karagenan, gum arab, permen jelly, labu kuning