

## ABSTRAK

Penelitian ini bertujuan untuk mendapatkan konsentrasi gelatin dan konsentrasi *jelly powder* yang tepat untuk menghasilkan karakteristik minuman *jelly* jambu biji terbaik.

Penelitian ini dilakukan dalam dua tahap yaitu penelitian pendahuluan dan penelitian utama. Penelitian pendahuluan dilakukan untuk memperoleh gelatin dari tulang ikan nila dan menentukan perbandingan buah dan air yang akan digunakan pada penelitian utama. Rancangan percobaan menggunakan Rancangan Acak Kelompok (RAK) pola faktorial 3X3 dengan tiga kali ulangan. Faktor pertama penambahan gelatin (0,1%, 0,3%, 0,5%) dan faktor kedua penambahan *jelly powder* (0,2%, 0,3%, 0,4%) data diolah menggunakan tabel ANAVA dengan uji lanjut duncan. Variabel respon pada penelitian ini adalah uji organoleptik meliputi: warna, aroma, rasa, tekstur. respon kimia: kadar vitamin C metode iodimetri, gula reduksi metode *luff schrool*, kadar air metode destilasi. Respon fisik meliputi viskositas dan daya hisap.

Didalam penelitian utama menggunakan gelatin tulang ikan nila dengan kadar air sebesar 64,885%, kadar abu sebesar 1,92%, pH sebesar 4,5, Viskositas sebesar 9 cP, kekuatan gel sebesar 5,293 gforce dan rendemen sebesar 20%. Hasil analisis menunjukkan konsentrasi gelatin berpengaruh nyata terhadap karakteristik minuman *jelly* jambu biji yaitu terhadap vitamin C, kadar air, daya hisap, viskositas, warna, aroma, dan tekstur tetapi tidak berpengaruh nyata terhadap rasa dan gula reduksi. Konsentrasi *Jelly Powder* berpengaruh nyata terhadap vitamin C, gula reduksi, kadar air, daya hisap, viskositas, warna, aroma, rasa, dan tekstur. Interaksi konsentrasi gelatin dan *jelly powder* berpengaruh nyata terhadap warna, tekstur dan viskositas tetapi tidak berpengaruh nyata terhadap vitamin C, gula reduksi, kadar air, daya hisap, aroma, dan rasa. Sampel terpilih adalah formula dengan penambahan konsentrasi gelatin 0,3% dan konsentrasi *jelly powder* 0,3% dengan kadar vitamin C 41,766 mg/100 g, Gula Reduksi 12,713%, Kadar Air 72,675%, Viskositas 110 cP dan Daya Hisap 1,080 detik/ml.

## ABSTRACT

*The purpose of this research is to get the effect jelly powder and gelatin concentration on the characteristics of guava jelly drink (Psidium guajava.).*

*The research conducted into two stages: preliminary research and primary research. The preliminary research conducted to obtain gelatin from the Tilapia's bone and to determine proportion between fruit and water used in the primary research. The experimental plan were carried out in this research Randomized Block Design (RBD) with factorial pattern (3x3) and 3 times repetition. The first factor was addition of gelatin (0,1%, 0,3%, 0,5%) and the second was jelly powder (0,2%, 0,3%, 0,4%), data analyzed with ANAVA table with duncan further test. Variable response in this research was organoleptic test include: color, aroma, taste, texture. Chemical analysis: vitamin C was using iodimetry method, sugar reduction was using luff schrool method, and moisture content was using destilation method. Physical responses include viscosity and suction power.*

*In Primary research used gelatin of Tilapia's bone with water content of 64,8885%, ash content of 1,92%, pH 4,5, viscosity was 9 cP, gel strength of 5,293 gForce, and rendement was 20%. The result of the analysis show that gelatin concentration had significant effect on guava jelly drink characteristic to vitamin C, water content, suction, viscosity, color, aroma, and texture but there was no significant effect on taste and sugar reduction. Jelly Powder concentration has significant effect on vitamin C, sugar reduction, water content, suction power, viscosity, color, aroma, taste, and texture. The interaction of gelatin and jelly powder concentration had significant effect on color, texture and viscosity but there was no significant effect on vitamin C, sugar reduction, moisture content, suction power, aroma, and flavor. The selected sample was formula with addition of gelatin concentration 0,3% and jelly powder concentration 0.3% with vitamin C 41,766 mg/100 g, Sugar Reduction 12,713%, Water Content 72,675%, Viscosity 110 cP and Suction Power 1,080 seconds / ml.*