

## RINGKASAN

Tanaman nangka termasuk famili *Moraceae*, tanaman ini berasal dari India. Buah nangka mengandung vitamin A, C, thiamin, kalium, kalsium, riboflavin, zat besi, niasin, dan seng. Selain itu, nangka juga buah potensial untuk dikonsumsi sebagai sumber antioksidan. Buah nangka dapat diolah menjadi berbagai produk. Salah satu contohnya yaitu produk olahan yang digemari para konsumen ialah permen *jelly*. Permen *jelly* ialah permen bertekstur lunak yang diproses dengan penambahan komponen hidrokoloid seperti agar, gum, pektin, pati, karagenan, gelatin dan lain-lain yang digunakan untuk modifikasi tekstur sehingga menghasilkan produk yang kenyal. Pektin mempunyai sifat dapat berubah secara reversible menjadi gel. Keadaan inilah yang membedakan pektin dengan gel dari alginat dan pati karena, bentuk gelnya bersifat irreversible. Pektin memiliki kekenyalan yang khas karena bersifat *gelling agent* sehingga produsen permen *jelly* lebih banyak menggunakan pektin dari pada bahan pembentuk gel lainnya sebagai campuran produknya. Pektin tergolong polimer heterosakarida yang diperoleh dari dinding sel tumbuhan darat. Penggunaan pektin dalam pembuatan permen *jelly* dapat menghambat kristalisasi gula, mengubah cairan menjadi padatan yang elastis, memperbaiki bentuk dan tekstur permen *jelly* yang dihasilkan.

Penelitian ini dilaksanakan di Laboratorium THP Fakultas Pertanian UISU. Penelitian menggunakan rancangan acak lengkap (RAL) faktorial dengan dua (2) ulangan. Faktor I: Jumlah Gula (G) yang terdiri atas empat taraf :  $G_1 = 50\%$ ,  $G_2 = 55\%$ ,  $G_3 = 60\%$ ,  $G_4 = 65\%$ . Faktor II : Jumlah Pektin (P) yang terdiri atas empat taraf :  $P_1 = 1,0\%$ ,  $P_2 = 1,5\%$ ,  $P_3 = 2,0\%$ ,  $P_4 = 2,5\%$ . Parameter yang diamati meliputi Kadar air, kadar Vitamin C, TSS, tekstur, warna, rasa dan aroma. Hasil penelitian : Kadar air tertinggi 11,689% ( $G_1$ ), 11,845% ( $P_1$ ), kadar vitamin C tertinggi 3,881 mg/100g ( $G_1$ ), 2,883 mg/100g ( $P_1$ ), TSS tertinggi 73,275 ( $G_4$ ), 65,400 ( $P_4$ ) tekstur tertinggi 3,563 ( $G_4$ ), 23,525 ( $L_4$ ), warna tertinggi 3,825 ( $G_1$ ), 3,338 ( $P_1$ ) rasa tertinggi 3,425 ( $G_4$ ), 3,013 ( $P_4$ ), aroma tertinggi 3,589 ( $G_4$ ), 3,288 ( $P_1$ ). Untuk menghasilkan permen *jelly* yang baik dan disukai dapat dibuat dengan jumlah gula 65% dan jumlah pektin 2,5%.

*Kata Kunci : Nangka, Gula, Pektin, Permen Jelly*

## SUMMARY

Jackfruit plant including the family Moraceae, this plant originated from India. Jackfruit contains vitamins A, C, thiamine, potassium, calcium, riboflavin, iron, niacin, and zinc. In addition, jackfruit is also a potential fruit to be consumed as a source of antioxidants. Jackfruit can be processed into various products. One example is the processed product that is favored by consumers is jelly candy. Jelly jelly is a soft textured candy that is processed by the addition of hydrocolloid components such as agar, gum, pectin, starch, carrageenan, gelatin and others which are used for texture modification to produce a chewy product. Pectin has properties that can be reversibly changed into a gel. This situation distinguishes pectin from gels from alginates and starches because the gel's form is irreversible. Pectin has a special elasticity because it is a gelling agent so that jelly candy producers use more pectin than other gelling agents as a product mixture. Pectin, a class of heterosaccharide polymers obtained from cell walls of terrestrial plants. The use of pectin in the manufacture of jelly candy can inhibit sugar crystallization, convert liquid into an elastic solid, improve the shape and texture of the resulting jelly candy.

This research was conducted at the THP Laboratory, Faculty of Agriculture, UISU. The study used a factorial completely randomized design (CRD) with two (2) replications. Factor I: Total Sugar (G) consisting of four levels: G1 = 50%, G2 = 55%, G3 = 60%, G4 = 65%. Factor II: Amount of Pectin (P) consisting of four levels: P1 = 1.0%, P2 = 1.5%, P3 = 2.0%, P4 = 2.5%. The parameters observed were moisture content, Vitamin C content, TSS, texture, color, taste and aroma. Results: The highest water content was 11,689% (G1), 11,845% (P1), the highest vitamin C content was 3,881 mg / 100g (G1), 2,883 mg / 100g (P1), the highest TSS was 73,275 (G4), 65,400 (P4) texture highest 3,563 (G4), 23,525 (L4), highest color 3,825 (G1), 3,338 (P1) highest taste 3,425 (G4), 3,013 (P4), highest aroma 3,589 (G4), 3,288 (P1). To produce a good and preferred candy jelly can be made with an amount of 65% sugar with a 2,5% amount of pectin.

*Keywords: Jackfruit, Sugar, Pectin, Jelly Candy*