

**PERBEDAAN KARAKTERISTIK PERMEN *JELLY*
BERBAHAN TEPUNG DAN *NANOFIBER*
KOLANG-KALING (*Arenga pinnata*)**



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**FAKULTAS TEKNOLOGI PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2026**

PERBEDAAN KARAKTERISTIK PERMEN *JELLY* BERBAHAN TEPUNG DAN *NANOFIBER* KOLANG- KALING (*Arenga Pinnata*)

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui perbedaan karakteristik permen *jelly* yang dibuat dengan penambahan tepung kolang-kaling dan *nanofiber* kolang-kaling, serta menentukan perlakuan terbaik berdasarkan karakteristik kimia, fisik dan organoleptik. Penelitian dilakukan secara eksperimental menggunakan metode deskriptif dengan tiga perlakuan, yaitu A (kontrol), B (penambahan tepung kolang-kaling 4%) dan C (penambahan *nanofiber* kolang-kaling 4%). Hasil penelitian menunjukkan bahwa penggunaan *nanofiber* (perlakuan C) menghasilkan kadar air tertinggi (40,87%), lebih tinggi dibandingkan perlakuan B (31,66%) diikuti dengan nilai A_w perlakuan B berkisar 0,83 dibandingkan perlakuan C berkisar 0,85. Tingginya kadar air pada perlakuan C menyebabkan tekstur permen menjadi paling lunak (9,60 N/cm²) dibandingkan perlakuan B (14,61 N/cm²) dan kontrol (18,80 N/cm²). Kadar abu pada perlakuan B (0,20%) sedangkan perlakuan C (0,02%). Kadar serat kasar meningkat pada perlakuan B (0,89%) dan C (0,78%) dibandingkan kontrol (0,75%). Permen *jelly* B memiliki nilai pH 4,19 lebih rendah dibandingkan perlakuan C 4,39. Analisis warna menunjukkan perlakuan B memiliki ($h^*:92,15$; $C^*:7,18$ $L^*:32,52$) sedangkan perlakuan C memiliki ($h^*:97,83$; $C^*:7,45$ $L^*:39,20$). Berdasarkan hasil penelitian, perlakuan terbaik adalah perlakuan B dengan penerimaan organoleptik warna 3,92 ; tekstur 4,00 ; aroma 3,56 ; dan rasa 3,88. Hasil uji perbandingan pasangan menunjukkan bahwa panelis mampu mendeteksi perbedaan pada atribut warna dan tekstur antara perlakuan B dan C.

Kata kunci : galaktomanan, kolang-kaling, *nanofiber*, permen *jelly*, serat

DIFFERENCES IN CHARACTERISTICS OF JELLY CANDY MADE FROM SUGAR PALM (*Arenga pinnata*) FLOUR AND NANOFIBERS

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ABSTRACT

This study aimed to determine the differences in characteristics between jelly candies made with the addition of sugar palm fruit (kolang-kaling) flour and sugar palm fruit nanofibers, and to identify the best treatment based on chemical, physical, and organoleptic properties. An experimental study using a descriptive method was conducted with three treatments: A (control), B (addition of 4% sugar palm fruit flour), and C (addition of 4% sugar palm fruit nanofibers). The results showed that the use of nanofibers (treatment C) yielded the highest moisture content (40.87%) higher than treatment B (31.66%) while water activity (A_w) values were approximately 0.83 for treatment B and 0.85 for treatment C. The high moisture content in treatment C resulted in the softest texture (9.60 N/cm²) compared to treatment B (14.61 N/cm²) and the control (18.80 N/cm²). Ash content was 0.20% for treatment B and 0.02% for treatment C. Crude fiber content increased in treatments B (0.89%) and C (0.78%) compared to the control (0.75%). Jelly candy B had a pH of 4.19, lower than that of treatment C (4.39). Color analysis showed values of h^* : 92.15, C^* : 7.18, and L^* : 32.52 for treatment B, whereas treatment C showed h^* : 97.83, C^* : 7.45, and L^* : 39.20. Based on the results, treatment B was the best, with organoleptic acceptance scores of 3.92 for color, 4.00 for texture, 3.56 for aroma, and 3.88 for taste. Paired comparison test results indicated that panelists could detect differences in color and texture attributes between treatments B and C.

Keywords: fiber, galactomannan, jelly candy, nanofiber, sugar palm fruit