

PENGARUH PENCAMPURAN SARI RAMBUT JAGUNG MANIS PADA PERMEN JELI TERHADAP SIFAT FISIK, SIFAT ORGANOLEPTIK, DAN AKTIVITAS ANTIOKSIDAN

‘Afina ‘Aninnas*, Setyowati, SKM, M.Kes., Dra. Noor Tifauzah, M.Kes.
Jurusan Gizi Poltekkes Kemenkes Yogyakarta
Jl. Tatabumi No. 3 Banyuraden, Gamping, Sleman
*) Korespondensi penulis Email: afinaaninnas00@gmail.com

ABSTRAK

Latar Belakang: Kenaikan prevalensi Penyakit Tidak Menular (PTM) berhubungan dengan aktivitas fisik dan pola hidup yang mampu memicu radikal bebas. Antioksidan merupakan substansi yang dapat menetralkan aksi radikal bebas. Rambut jagung manis merupakan sumber antioksidan yang masih jarang digunakan karena tergolong limbah pangan. Permen jeli merupakan makanan kudapan semi padat yang terbuat dari sari buah/sayur yang dipadatkan dengan *gent agent* seperti gelatin. Pencampuran Sari rambut jagung manis diharapkan dapat meningkatkan kandungan aktivitas antioksidan, mutu, dan daya terima permen jeli.

Tujuan: Diketuainya pengaruh pencampuran sari rambut jagung manis pada permen jeli terhadap sifat fisik, sifat organoleptik, dan aktivitas antioksidan.

Metode: Penelitian ini merupakan eksperimen murni dengan desain penelitian Rancangan Acak Lengkap meliputi 2 unit percobaan, 1 kali ulangan, dan 4 variasi pencampuran sari rambut jagung manis dan air (100%:0%; 80%:20%; 70%:30%; 60%:40%). Kemudian dilakukan uji sifat fisik secara subjektif. Uji sifat organoleptik dengan uji *hedonic* dilakukan oleh 20 panelis agak terlatih. Pengujian aktivitas antioksidan dilakukan dengan metode DPPH.

Hasil: Hasil sifat fisik permen jeli menunjukkan terdapat perbedaan pada aroma. Ada perbedaan yang bermakna pada tingkat kesukaan ($p < 0,05$) yakni aroma (0,002) dan rasa (0,000) dan tidak ada perbedaan bermakna terhadap tingkat kesukaan ($p > 0,05$) yakni warna (0,144) dan tekstur (0,086). Terdapat perbedaan yang bermakna terhadap kadar aktivitas antioksidan ($p < 0,05$).

Kesimpulan: Permen jeli yang disukai oleh para panelis serta dapat dikembangkan secara sifat fisik, sifat organoleptik, dan kadar aktivitas antioksidan yaitu permen jeli perlakuan dengan variasi campuran sari rambut jagung manis 20%.

Kata Kunci: Permen jeli, Jagung manis, Rambut jagung, Aktivitas antioksidan

THE IMPACT OF THE MIXING OF SWEET CORN SILK ESSENCES IN JELLY CANDIES UPON PHYSICAL PROPERTIES, ORGANOLEPTIC PROPERTIES, AND ANTIOXIDANT ACTIVITIES

‘Afina ‘Aninnas*, Setyowati, SKM, M.Kes., Dra. Noor Tifauzah, M.Kes.
Nutrition Studies, Yogyakarta Ministry of Health Polytechnic
Jl. Tatabumi No. 3 Banyuraden, Gamping, Sleman
*) Author’s E-mail Correspondence: afinaaninnas00@gmail.com

ABSTRACT

Research Background: The rise in the prevalence of Incommunicable Diseases are connected to physical activities and lifestyles that can trigger free radicals. Antioxidants are substances that can neutralize the activities of free radicals. Sweet corn silks are sources of antioxidants that are still rarely used as it is being categorized as food waste. Jelly candies are semi-solid snacks made of fruit/vegetable essences solidified with gelling agents such as gelatin. The mixing of sweet corn silk essences are expected to improve the contents of the antioxidant activities, quality, and food acceptance of jelly candies.

Research Objectives: Understanding the impact of the mixing of sweet corn silk essences in jelly candies upon physical properties, organoleptic properties, and antioxidant activities.

Research Method: This research is a pure experiment using the Random Block Design of research, including 2 experiment units, 1 replication, and 4 variations of mixture of sweet corn silk essence and (100%:0%; 80%:20%; 70%:30%; 60%:40%). Consequently, physical properties examinations were conducted subjectively. Organoleptic properties examination with hedonic test were conducted by 20 semi-trained panelists. Examinations on antioxidant activities were conducted using the DPPH method.

Results: The results of jelly candies’ physical properties showed difference in scent. There were found significant differences in levels of pleasure ($p < 0.05$) in scent (0.002) and taste (0.000) and no significant differences in levels of pleasure ($p > 0.05$) in color (0.144) and texture (0.086). There were found significant differences in antioxidant activity levels ($p < 0.05$).

Conclusion: Jelly candies that were being favoured by the panelists and are available for further developments in physical properties, organoleptic properties, and antioxidant activities are the jelly candies treated with the variation of 20% of sweet corn silk essence mixtures.

Keywords: Jelly candies, Sweet corn, Corn silk, Antioxidant activities