

Sifat Kimia, Fisik, dan Tingkat Kesukaan Permen Lunak Lidah Buaya dengan Variasi Ketebalan Irisan dan Konsentrasi Agar-agar

Intisari

Lidah buaya mengandung zat bioaktif yang bermanfaat bagi kesehatan, namun konsumsi dalam bentuk segar tidak praktis, sehingga memerlukan sebuah inovasi pengolahan lidah buaya agar mudah dikonsumsi salah satunya permen lunak. Mutu dan kesukaan permen utamanya ditentukan oleh teksturnya, salah satu pembentuk tekstur permen lunak adalah konsentrasi agar-agar yang ditambahkan serta ketebalan irisan permen. Tujuan penelitian ini adalah menghasilkan permen lunak lidah buaya yang mempunyai aktivitas antioksidan dan disukai panelis.

Permen lunak terbuat dari bahan pembentuk gel yaitu agar-agar, *jelly*, gula, pewarna dan air yang dimasak sampai mendidih, kemudian ditambahkan gel lidah buaya saat matang, didinginkan, dipotong, dan dikeringkan. Analisis yang dilakukan meliputi kadar air, aktivitas antioksidan, total asam, kadar gula total, dan pengujian fisik warna dan tekstur serta uji inderawi uji kesukaan. Metode penelitian yang dilakukan menggunakan Rancangan Acak Lengkap (RAL) pola faktorial dengan 2 faktor, faktor pertama variasi konsentrasi agar-agar 1% dan 2% dan faktor kedua ketebalan irisan dengan variasi ketebalan 1; 1,5; dan 2,5 cm. Data yang diperoleh kemudian dianalisis statistik menggunakan *Univariate* dan untuk uji pembeda dilanjutkan *Duncan Multiple Range Test* (DMRT).

Hasil penelitian menunjukkan bahwa adanya perlakuan variasi ketebalan irisan dan konsentrasi agar- agar berpengaruh terhadap sifat fisik yaitu warna semakin cerah, dominan hijau dan kekuningan serta tekstur yang semakin keras, selain itu sifat kimianya yang semakin meningkat pada kadar air dan aktivitas antioksidan dan mengalami penurunan total asam dan kadar gula total. Permen yang paling disukai panelis adalah permen dengan ketebalan irisan 2,5 cm dan konsentrasi agar-agar 1%.

Kata kunci: Lidah buaya, permen lunak, konsentrasi agar-agar, ketebalan, tekstur

Chemical and Physical Properties and Preference Level of Aloe vera Soft Candy Made with Various Thickness and Agar Agar Concentrations

ABSTRACT

Aloe vera contains bioactive substances that are beneficial for health, but the direct consumption is impractical, so it requires innovative process to make it easy to consume, such as soft candy. The quality and preference of the candy is mainly determined by its texture. One of the texture-forming substances of soft candy is the concentration of agar-agar that was added and the thickness of the candy slices. The aim of this study was to produce aloe vera soft candy which has antioxidant activity and preferred by the panelists.

Soft candy is made from gel-forming ingredients, that is agar-agar, jelly, sugar, food coloring, boiled water, the addition of aloe vera gel when it was cooked, and then cooled, chopped, and dried. The carried out analysis was included the moisture, antioxidant activity, total acid, total level of sugar, and physical testing of color and texture as well as sensory test of preference test. The research method used was a complete random design (CRD) factorial pattern with 2 factors, the first factor was the variation of 1% and 2% agar-agar concentration and the second factor was 1; 1.5; and 2.5 cm of the thickness variation. The data obtained was analyzed statistically using *Univariate* and continued with the *Duncan Multiple Range Test (DMRT)* for the differentiation test.

The results of this study showed that the treatment of variations in the slice thickness and the concentration of agar-agar affect the physical features, such as the color became brighter with green and yellowish as the dominant colors, the texture was getting harder, besides the chemical features increased in moisture and antioxidant activity, and then had a decreasing acid and total sugar level. The candy that panelists liked the most was the candy with 2.5 cm thickness of slices and 1% agar-agar concentration.

Keywords: Aloe vera, soft candy, agar-agar concentration, thickness, texture