

## **PENGARUH KONDISI DAN LAMA PENYIMPANAN TERHADAP KANDUNGAN NUTRISI, PH DAN WARNA GUM *Acacia decurrens* Willd.**

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### **INTISARI**

*Acacia decurrens* merupakan tanaman penghasil gum yang banyak ditemukan di kawasan sekitar Gunung Merapi sejak erupsi tahun 2010. Penelitian mengenai *Acacia decurrens* di Indonesia masih seputar persebaran spesies hingga tingkat keinvasifannya, sehingga sangat terbatas informasi mengenai gum *Acacia decurrens*. Oleh karena itu, penelitian ini bertujuan untuk mengetahui potensi gum *Acacia decurrens* sebagai produk yang bermanfaat di bidang pangan.

Sampel penelitian diperoleh dari penyadapan pohon *Acacia decurrens* di Kalikuning Park, Desa Palemsari, Kecamatan Cangkringan, Kabupaten Sleman, Provinsi Daerah Istimewa Yogyakarta. Rancangan penelitian berupa acak lengkap dengan pola faktorial dengan dua faktor yaitu kondisi penyimpanan (wadah terbuka dan wadah tertutup) dan lama penyimpanan (3, 6 dan 9 hari). Pengujian yang dilakukan meliputi kandungan nutrisi (kadar air, kadar abu, kadar lemak, kadar protein, kadar karbohidrat), pH, dan warna.

Hasil penelitian menunjukkan bahwa kondisi penyimpanan pada wadah tertutup selama 3, 6, 9 hari memiliki kadar air secara berurutan sebesar 54,621%; 38,964%; 38,249%. Kadar abu secara berurutan sebesar 1,051%; 1,671%; 3,930%. Kadar lemak secara berurutan sebesar 0,040%; 0,033%; 0,033%. Kadar protein secara berurutan sebesar 1,490%; 2,173%; 2,393%. Kadar karbohidrat secara berurutan sebesar 42,798%; 57,159%; 55,395%. Nilai pH secara berurutan sebesar 3,810; 3,697; 3,607. Tingkat kecerahan secara berurutan sebesar 31,293; 27,540; 25,663. Tingkat kemerahan secara berurutan sebesar 9,423; 11,323; 8,660. Tingkat kekuningan secara berurutan sebesar 15,280; 14,483; 12,723. Sedangkan pada kondisi penyimpanan terbuka selama 3, 6, 9 hari memiliki kadar air secara berurutan sebesar 50,990%; 30,768%; 14,081%. Kadar abu secara berurutan sebesar 3,119%; 3,459%; 4,009%. Kadar lemak secara berurutan sebesar 0,047%; 0,053%; 0,080%. Kadar protein secara berurutan sebesar 3,017%; 5,310%; 4,303%. Kadar karbohidrat secara berurutan sebesar 42,827%; 60,410%; 77,527%. Nilai pH secara berurutan sebesar 3,617; 3,567; 3,333. Tingkat kecerahan secara berurutan sebesar 26,527; 21,797; 11,503. Tingkat kemerahan secara berurutan sebesar 5,337; 2,347; 8,073. Tingkat kekuningan secara berurutan sebesar 10,843; 4,333; 7,850. Kombinasi perlakuan terbaik pada kondisi penyimpanan wadah buka selama 9 hari.

**Kata kunci:** Gum, *Acacia decurrens*, Kandungan Nutrisi, pH, Warna

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## THE EFFECT OF STORAGE CONDITIONS AND DURATIONS ON NUTRITION CONTENT, PH AND COLOR OF GUM *Acacia decurrens* Willd.

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### ABSTRACT

*Acacia decurrens* is a gum producing plant that easily found in the slope of Mount Merapi after the eruption in 2010. Recently, most of the research about *Acacia decurrens* in Indonesia has been focused on topics related to species distribution and invasiveness, and left behind gum related topics. The objectives of this study is to find out the potential of *Acacia decurrens* gum as a beneficial product for food field.

The research sample was obtained from tapping *Acacia decurrens* in Kalikuning Park, Palemsari Village, Cangkringan District, Sleman Regency, Yogyakarta Special Region Province. The research design was completely randomized with a factorial pattern with two factors, namely storage conditions (open and closed containers) and storage times (3, 6 and 9 days). The tests carried out included nutrient content (water content, ash content, fat content, protein content, carbohydrate content), pH, and color.

The results showed that the storage conditions in closed containers for 3, 6, 9 days had a water content in sequence was 54.621%; 38.964%; 38.249%. The ash content in sequence was 1.051%; 1.671%; 3.930%. Fat content in sequence was 0.040%; 0.033%; 0.033%. The protein content in sequence was 1.490%; 2.173%; 2.393%. Carbohydrate content in sequence was 42.798%; 57.159%; 55.395%. The pH value in sequence was 3.810; 3.697; 3.607. The brightness level in sequence was 31,293; 27,540; 25,663. The level of redness in sequence was 9.423; 11,323; 8,660. The level of yellowness in sequence was 15,280; 14,483; 12,723. Meanwhile, in open storage conditions for 3, 6, 9 days, the water content in sequence was 50.990%; 30.768%; 14.081%. The ash content in sequence was 3.119%; 3,459%; 4,009%. Fat content in sequence was 0.047%; 0.053%; 0.080%. The protein content in sequence was 3.017%; 5.310%; 4.303%. Carbohydrate content in sequence was 42.827%; 60.410%; 77.527%. The pH value in sequence was 3.617; 3,567; 3,333. The brightness level in sequence was 26,527; 21,797; 11,503. The level of redness in sequence was 5,337; 2,347; 8,073. The yellowness level in sequence was 10,843; 4,333; 7,850. The best combination of treatments was in the open container storage conditions for 9 days.

**Keywords:** Gum, *Acacia decurrens*, Nutrient Content, pH, Color

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