

## Evaluasi Profil Sensori Gula Merah Tebu dengan Metode *Rate-All-That-Apply* (RATA)

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### ABSTRAK

**Latar belakang:** Gula merah tebu di Jawa Tengah dibuat dengan teknologi skala industri rumah tangga yang sederhana, sehingga memiliki kualitas yang inkonsisten. Banyaknya gula merah tebu lokal yang berkembang di masyarakat mempunyai jenis yang beragam. Hal ini tentu akan mempengaruhi karakteristik gula merah tebu yang dihasilkan termasuk sifat sensori seperti warna, rasa, aroma, tekstur, dan *aftertaste*.

**Tujuan:** Mengetahui karakteristik profil sensori (warna, rasa, tekstur, aroma, *aftertaste*) gula merah tebu dan mendapatkan atribut yang disukai konsumen di Jawa Tengah.

**Metode:** Jenis penelitian deskriptif menggunakan metode *Rate-All-That-Apply* (RATA). Lima tahap penelitian yaitu survei konsumen, seleksi panelis, *focus group discussion*, pengujian, dan analisis data. Sampel yang digunakan adalah gula merah tebu dari Kudus, Rembang, Blora masing-masing 10g. Total 120 panelis dari daerah Kudus, Rembang, Blora, dan Semarang. Data dianalisis menggunakan uji Kruskal-Wallis dilanjutkan dengan uji Mann-Whitney dan *Principal Component Analysis*.

**Hasil:** 9 atribut yang signifikan ( $p < 0,05$ ) yaitu rasa manis, rasa pahit, *flavor* karamel, *flavor burnt*, warna coklat, tekstur berpasir, tekstur lembek, tekstur keras, dan *aftertaste* pahit. Sampel Blora memiliki atribut yang dominan yaitu tekstur lembek (3,7), tekstur berpasir (3,5), warna coklat (4,1), *flavor burnt* (2,8), *flavor* karamel (3,0), rasa pahit (2,9), dan *aftertaste* pahit (2,8). Sampel Kudus rasa manis (3,5) dan sampel Rembang tekstur keras (3,5). Konsumen menyukai rasa manis dan tekstur keras, sedangkan tekstur lembek, tekstur berpasir, *flavor burnt*, *flavor* karamel, rasa pahit, dan *aftertaste* pahit kurang disukai.

**Simpulan:** Gula merah tebu memiliki karakteristik profil sensori yang berbeda-beda untuk masing-masing daerah di Jawa Tengah. Panelis dapat menentukan atribut yang disukai dan kurang disukai pada gula merah tebu.

**Kata Kunci:** gula merah tebu, *rate-all-that-apply*, sensori

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## **Sensory Profile Evaluation of Brown Sugar Cane with the Rate-All-That-Apply (RATA) Method**

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### **ABSTRACT**

**Background:** Brown sugar cane in Central Java is made with simple home-industrial scale technology, so it has inconsistent quality. The number of local brown sugar cane that develops in the community has various types. This will certainly affect the characteristics of brown sugar produced, including sensory properties such as color, taste, aroma, texture, and aftertaste.

**Purpose:** Knowing the characteristics of the sensory profile (color, taste, texture, aroma, aftertaste) of brown sugar cane and getting the attributes favored by consumers in Central Java.

**Method:** This type of descriptive research uses the Rate-All-That-Apply (RATA) method. Five stages of research is consumer surveys, panelist selection, focus group discussion, testing, and data analysis. The samples used were brown sugar cane from Kudus, Rembang, Blora each 10g. A total of 120 panelists from the areas of Kudus, Rembang, Blora, and Semarang. Data were analyzed using the Kruskal-Wallis test followed by the Mann-Whitney test and Principal Component Analysis.

**Result:** 9 significant attributes ( $p < 0.05$ ) were sweet taste, bitter taste, caramel flavor, burnt flavor, brown color, sandy texture, mushy texture, hard texture, and bitter aftertaste. Blora samples have dominant attributes, namely mushy texture (3.7), sandy texture (3.5), brown color (4.1), burnt flavor (2.8), caramel flavor (3.0), bitter taste (2.9), and bitter aftertaste (2.8). The Kudus sample has a sweet taste (3.5) and the Rembang sample has a hard texture (3.5). Consumers like the sweet taste and hard texture, while the soft texture, gritty texture, burnt flavor, caramel flavor, bitter taste, and bitter aftertaste are less preferred.

**Conclusion:** Brown sugar cane has different sensory profile characteristics for each region in Central Java. Panelists can determine the preferred and less favorable attributes of brown sugar cane.

**Keyword:** brown sugar cane, rate-all-that-apply, sensory

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