

**OPTIMASI SUHU DAN DURASI *ROASTING* KOPI ROBUSTA *SINGLE ORIGIN*  
MERAPI BERDASARKAN KARAKTERISTIK SENSORIS**

Oleh

NANDA

21/473788/SV/18849

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Universitas Gadjah Mada pada tanggal .....  
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Sarjana Terapan Teknik

**ABSTRAK**

Kopi merupakan salah satu minuman yang paling banyak dikonsumsi di dunia. Karakteristik rasa minuman kopi dipengaruhi oleh beberapa faktor salah satunya adalah proses *roasting*. Di Indonesia, kopi robusta menjadi jenis kopi yang banyak diproduksi, termasuk di Kabupaten Sleman kawasan lereng Merapi yang memiliki produksi cukup melimpah. Namun, proses *roasting* yang dilakukan oleh masyarakat lokal umumnya menggunakan metode tradisional. Pengolahan kopi dengan metode tradisional cenderung kurang terkontrol dalam hal suhu dan durasi *roasting*, sehingga karakteristik sensoris kopi yang dihasilkan belum terstandarisasi dengan baik. Proses *roasting* yang tepat dapat menghasilkan profil rasa, aroma, *aftertaste*, dan warna yang lebih optimal, sehingga meningkatkan kualitas dan daya saing kopi di pasar. Penelitian ini bertujuan untuk menganalisis pengaruh suhu dan durasi *roasting* terhadap karakteristik sensoris Kopi Robusta *Single Origin* Merapi proses *honey*. *Roasting* dilakukan pada suhu 210°C, 220°C, dan 230°C dengan durasi 9, 11, dan 13 menit. Pengujian kualitas *roasting* dilakukan melalui uji sensoris menggunakan metode *cupping* (CQI) dengan 5 panelis terlatih. Hasil penelitian menunjukkan bahwa suhu *roasting* berpengaruh signifikan ( $p < 0,05$ ) terhadap karakteristik sensoris, sedangkan durasi *roasting* dan interaksi antara suhu dan durasi *roasting* keduanya tidak berpengaruh signifikan ( $p \geq 0,05$ ) yang dianalisis dengan Uji *Scherier Ray*. Perlakuan *roasting* suhu 220°C dan durasi 11 menit menghasilkan karakteristik sensoris terbaik dengan aroma *nutty*, *body* tebal, *bitter/sweet* seimbang, *flavor dark chocolate* dan *caramel*, *aftertaste* bersih, serta *balance* yang baik dengan *final score* 82. Hasil fisiko-kimia pada perlakuan ini yakni kadar air 2,14%, nilai pH 5,06, dan kadar gula terlarut 1,67°Brix.

**Kata kunci:** *cupping*, karakteristik sensoris, kopi robusta *single origin*, *roasting*

Pembimbing Utama: Anjar Ruspita Sari, S.T.P., M.Sc.

## **OPTIMIZATION OF ROASTING TEMPERATURE AND DURATION OF ROBUSTA SINGLE ORIGIN MERAPI COFFEE BASED ON SENSORY CHARACTERISTICS**

by

Nanda

21/473788/SV18849

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### **ABSTRACT**

Coffee is one of the most widely consumed beverages in the world, with its flavor characteristics influenced by several factors, one of which is the roasting process. In Indonesia, Robusta coffee is among the most widely produced varieties, particularly in Kabupaten Sleman, located on the slopes of Mount Merapi, which has a high production volume. However, the roasting process used by local communities still relies heavily on traditional methods, which tend to be less controlled in temperature and duration, leading to inconsistent sensory characteristics. Proper roasting can enhance flavor, aroma, aftertaste, and color, improving coffee quality and market competitiveness. This study aims to analyze the effects of roasting temperature and duration on the sensory characteristics of Robusta Single Origin Merapi coffee with honey processed. Roasting was conducted at 210°C, 220°C, and 230°C for 9, 11, and 13 minutes, resulting in 9 sample combinations. Sensory evaluation was performed using the cupping method following CQI standards, with five panelists assessing the differences in sensory attributes among the samples. Research results indicate that roasting temperature significantly affected ( $p < 0,05$ ) the sensory characteristics, while roasting duration and the interaction between temperature and duration had no significant effect ( $p \geq 0.05$ ), as analyzed using the Scheirer-Ray-Hare test. The results showed that the roasting treatment at 220°C for 11 minutes produced the best sensory characteristics, with nutty aroma, full body, balanced bitter/sweet ratio, dark chocolate and caramel flavor, clean aftertaste, and good balance, resulting in a final score of 82. The physicochemical properties of this treatment were 2.14% moisture content, pH value of 5.06, and 1.67°Brix of total dissolved solids.

**Keywords:** cupping, roasting, robusta single origin merapi, sensory characteristics

Supervisor: Anjar Ruspita Sari, S.T.P., M.Sc.