

Physico-chemical Characteristics of Different Lengths of Boiling and Steaming Time of Argopuro Robusta Coffee (*Coffea canephora* L.)

Anni Nuraisyah, S.TP, M.Si.

Aliyyah Wardahni

**Study Program of Plantation Crop Cultivation
Department of Agricultural Production**

ABSTRACT

Coffee is Indonesia's leading plantation commodity with robusta coffee having a higher caffeine content than arabica, so excessive consumption can cause health problems. Decaffeination processes such as boiling and steaming have been proven effective in reducing caffeine levels, but can affect the physico-chemical characteristics of coffee. Therefore, this study aimed to examine the effect of boiling and steaming time on the physico-chemical characteristics of robusta Argopuro coffee in order to obtain the optimal decaffeination method. This research was conducted at the Agricultural Product Processing Laboratory of Jember State Polytechnic, while the measurement of caffeine content was conducted at the Bioscience Laboratory. This research was conducted from July 2024 - January 2025. This research was conducted using a non-factorial Completely Randomized Design (CRD) for yield, moisture content, and density parameters. The coffee processing method consists of 7 treatments with 4 repetitions so that 28 treatment samples will be obtained. The research variables can be explained as follows: Factor Length of Boiling and Steaming Time of Argopuro Robusta Coffee: P0: Control (No boiling without steaming), P1: Boil 30 minutes, P2: Boil 60 minutes, P3: Boil 90 minutes, P4: Steam 30 minutes, P5: Steam 60 minutes, P6: Steam 90 minutes. The results showed that the treatment of boiling time affected the yield value, density, moisture content and caffeine content. The treatment of steaming time affects the yield value, density, moisture content and caffeine content.

Keywords: *Coffee, Robusta, Steaming, Boiling*