

## ABSTRAK

Laili, Mutiara Rahmatul. 2022. Uji Mutu Fisik Kopi Arabika (*Coffea arabica*) Dan Robusta (*Coffea canephora*) Sebagai E-modul SMK. Skripsi, Program Studi Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Jember. Pembimbing: (1) Ika Priantari, S.Si, M.Pd. (2) Hendy Firmanto, S.Si, M.Sc.

**Kata Kunci :** Kopi arabika (*Coffea arabica*), Kopi robusta (*Coffea canephora*), E-modul

Penelitian ini bertujuan untuk mengetahui mutu fisik kopi arabika (*Coffea arabica*) varietas (Andungsari 2K, Komasti) dan kopi robusta (*Coffea canephora*) (KP Kaliwing dan KP SA) berdasarkan SNI 2008 dan mengetahui validitas e-modul uji mutu fisik kopi arabika (*Coffea arabica*) dan kopi robusta (*Coffea canephora*) yang dikembangkan di SMK.

Penelitian ini dilakukan di laboratorium Pusat penelitian kopi dan kakao Indonesia. Penelitian ini merupakan penelitian deskriptif dan penelitian pengembangan. Rancangan penelitian yang digunakan yaitu penelitian *experimen* dengan 3 kali pengulangan dan penelitian pengembangan model 4D yang dibatasi sampai tiga tahap yaitu: *define, design, development*. Instrumen penelitian yang digunakan yaitu lembar uji mutu fisik kopi sesuai SNI 2008 dan lembar validasi e-modul.

Berdasarkan hasil penelitian mutu fisik kopi menggunakan SNI 2008 diperoleh hasil yaitu (*Coffea arabica*) varietas komasti dan klon Andungsari 2K, termasuk kedalam kopi dengan mutu 2. Kopi robusta (*Coffea canephora*) KP Kaliwing termasuk kedalam kopi mutu 3 dan KP SA termasuk kedalam kopi dengan mutu 6. Hasil Penelitian ini kemudian dikembangkan sebagai E-modul di SMK. E-modul yang dikembangkan divalidasi oleh validator ahli memperoleh presentase yaitu ahli materi 78%, ahli materi 87,5%, ahli perangkat 76%, ahli bahasa 75%, ahli perangkat 94%, ahli perangkat 94%. Hasil validasi oleh beberapa ahli dilakukan perhitungan rata-rata memperoleh nilai 84% dengan kriteria “sangat valid”.

## ABSTRACT

Laili, Mutiara Rahmatul. 2022. Physical Quality Test of Arabica Coffee (*Coffea arabica*) and Robusta (*Coffea canephora*) as Vocational High School E-module. Thesis, Biology Education Study Program, Faculty of Teacher Training and Educational Science. Universitas Muhammadiyah Jember. Pembimbing: (1) Ika Priantari, S.Si, M.Pd. (2) Hendy Firmanto, S.Si, M.Sc

**Keyword** : Arabica coffee (*Coffea arabica*), Robusta coffee (*Coffea canephora*), E-module

This study aims to determine the physical quality of Arabica coffee (*Coffea arabica*) varieties (Andungsari 2K, Komasti) and robusta coffee (*Coffea canephora*) (KP Kaliwing and KP SA) based on SNI 2008 and to determine the validity of the e-module physical quality test of Arabica coffee (*Coffea arabica*) and robusta coffee (*Coffea canephora*) developed at SMK.

This research was conducted in the laboratory of the Indonesian Coffee and Cocoa Research Center. This research is a descriptive research and development research. The research design used is experimental research with 3 repetitions and research on the development of 4D models which is limited to three stages, namely: define, design, development. The research instrument used was the physical quality test sheet for coffee according to SNI 2008 and the e-module validation sheet.

Based on the results of the research on the physical quality of coffee using SNI 2008 the results obtained are (*Coffea arabica*) the komasti variety and the Andungsari 2K clone, including coffee with quality 2. Robusta coffee (*Coffea canephora*) KP Kaliwing is included in quality 3 coffee and KP SA is included in coffee with quality 6. The results of this study were then developed as an E-module in SMK. The developed e-module was validated by expert validators and obtained percentages of material experts 78%, material experts 87.5%, device experts 76%, linguists 75%, device experts 94%, hardware experts 94%. The results of the validation by several experts were calculated to get an average value of 84% with the criteria of "very valid".