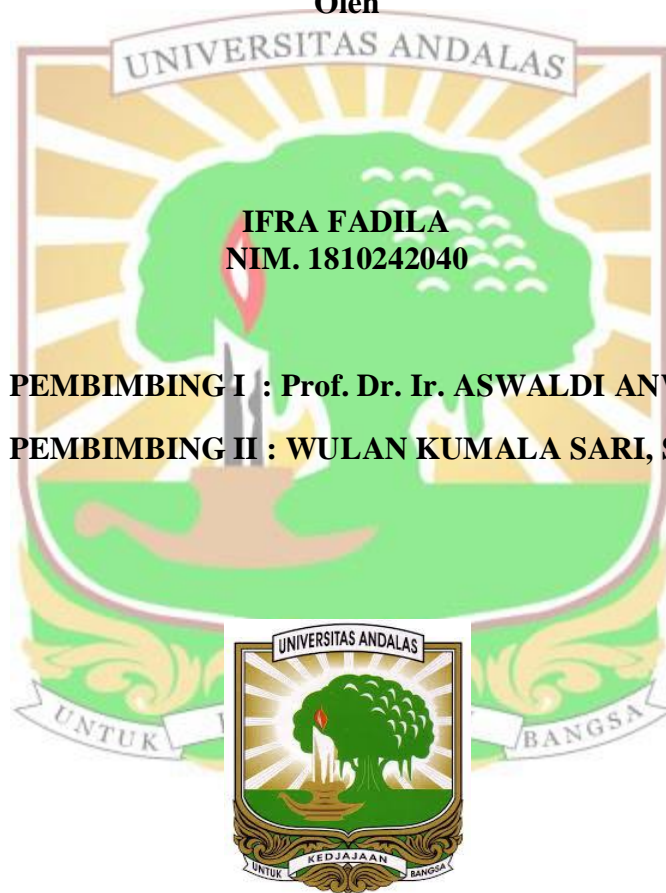


**INVIGORASI BENIH KOPI ARABIKA (*Coffea arabica* L.)
MENGUNAKAN METODE *MATRICONDITONING***

SKRIPSI

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INVIGORASI BENIH KOPI ARABIKA (*Coffea arabica* L.) MENGUNAKAN METODE *MATRICONDITIONING*

ABSTRAK

Kopi sebagai komoditas perkebunan utama di Indonesia. Sebagian besar petani menggunakan sumber benih kopi arabika dari hasil musim panen sebelumnya dan telah disimpan cukup lama, sehingga benih tersebut mengalami kemunduran benih (deteriorasi) dan secara fisiologis akan berpengaruh terhadap viabilitas dan vigor benih. Salah satu metode efektif yang dapat digunakan untuk meningkatkan viabilitas dan vigor benih kopi arabika dengan cara invigorasi *matriconditioning*. Penelitian ini bertujuan untuk mengetahui pengaruh *matriconditioning* dan mendapatkan media *matriconditioning* yang terbaik dalam meningkatkan viabilitas dan vigor benih kopi arabika yang telah mengalami kemunduran. Percobaan dilaksanakan di Laboratorium Kampus 3 Universitas Andalas, Dharmasraya dari bulan November 2022 hingga Januari 2023. Percobaan dilakukan menggunakan metode eksperimental dengan Rancangan Acak Lengkap (RAL) yang terdiri dari 5 perlakuan dan 4 ulangan. Perlakuan *matriconditioning* yang digunakan yaitu tanpa *matriconditioning*, serbuk gergaji, batu bata merah, abu sekam, dan sekam padi. Variabel pengamatan meliputi kadar air benih, kadar air media *matriconditioning*, daya berkecambah, potensi tumbuh maksimum, perkecambahan hitungan pertama, nilai indeks, panjang hipokotil, dan panjang akar. Data hasil pengamatan dianalisis dengan uji F taraf 5% dan jika berbeda nyata dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DNMRT) taraf 5%. Hasil penelitian menunjukkan bahwa *matriconditioning* menggunakan serbuk gergaji mampu meningkatkan viabilitas dari 62,50% menjadi 75,00%, namun belum mencapai viabilitas yang baik karena daya kecambahnya belum mencapai 80,00%. Tetapi media *matriconditioning* tersebut tidak efektif dalam meningkatkan vigor benih kopi arabika.

Kata kunci: benih kopi arabika, deteriorasi, serbuk gergaji, viabilitas, vigor

INVIGORATION OF ARABICA COFFEE (*Coffea arabica* L.) SEEDS BY THE MATRICONDITIONING METHOD

ABSTRACT

Coffee is the primary plantation commodity in Indonesia. Most of the farmers use Arabica coffee seed sources that have been stored for a long time because it came from the previous harvest season, so that the seeds encounter deterioration and physiologically will affect the seed's viability and vigor. One of the effective methods that can be used to increase the viability and vigor of Arabica coffee seeds is by matriconditioning invigoration. The objectives of this study were to determine the effect of matriconditioning and obtain the best matriconditioning media to increasing the viability and vigor of Arabica coffee seeds that have encounter deterioration. The experiment was carried out at the Laboratory of the 3rd Campus Andalas University, Dharmasraya on November 2022 until January 2023. The experiment was conducted using the experimental method by a Completely Randomized Design (CRD) consisted of 5 treatments and 4 replications. The matriconditioning media treatments were without matriconditioning, sawdust, red bricks, husk ash, and rice husks. The observed variables included seed moisture content, matriconditioning media moisture content, germination rate, maximum growth potential, first count germination, index value, hypocotyl length, and root length. The observed data were analyzed by the F test at the 5% level and if it was significantly different, continued by the Duncan's New Multiple Range Test (DNMRT) at the 5% significance level. The results showed that matriconditioning using sawdust increased viability from 62,50% to 75,00%, but did not achieve good viability because the germination rate had not reached 80,00%. However, the matriconditioning media was not effective in increasing the vigor of Arabica coffee seeds.

Keywords: arabica coffee seeds, deterioration, sawdust, viability, vigor