Pengaruh Berbagai Konsentrasi Giberelin dan Lama Perendaman Terhadap Perkecambahan Benih Kopi Arabika (*Coffea arabica* L.)

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ABSTRACT

Arabica coffee seeds that have experienced a decline can still be used as planting material. To increase the germination rate, it is necessary to invigorate by immersing several levels of concentration and soaking time using Gibberellin solution. This study aimed to determine the effect of Gibberellin PGR concentration on Arabica coffee germination, the effect of soaking time with Gibberellin PGR on Arabica coffee seed germination and the interaction effect between concentration and soaking time with Gibberellin PGR on Arabica coffee seed germination. This research was conducted at the Agronomy Laboratory of the Indonesian Coffee and Cocoa Research Center, from December 2021 to January 2022. The design used was a Factorial Completely Randomized Design (RALF) consisting of 2 factors and 3 replications. The first factor is Concentration (K) consisting of 4 types, namely K0 = 0 ppm: K1 = 10 ppm: K2 = 20 ppm: K3 = 30 ppm, and the second factor is Immersion Time (L) with 3 levels, namely: L1 = soaked for 6 hours : L2 = soaked for 12 hours : L3 = soaked for 18 hours. Parameters observed were percentage of germination, percentage of moldy seeds, radicle length, radicle diameter, percentage of kepel, hypocotyl height, hypocotyl diameter, and germination height. The results showed that the concentration treatment did not show a significant effect on the parameters of germination percentage, germination speed, percentage of moldy seeds, radicle length, and radicle diameter. The soaking time treatment had a significant effect on the parameters of the percentage of moldy seeds and the length of the radicle. There was no interaction between concentration and duration of immersion on the parameters of germination percentage, germination speed, percentage of moldy seeds, radicle length, and radicle diameter.

Keywords **:** *Germination, Gibberellins, Concentration, Soaking Time*.