ROBUSTA COFFEE SEED (Coffea canephora) GERMINATION WITH VARIOUS CONCENTRATIONS OF GROWTH REGULATORS GIBBERELIN (GA₃)

Elly Viana^{(1)*}; Ujang Setyoko⁽²⁾; Triono Bambang Irawan⁽³⁾

Cultivation of Plantation Crop Study Program
Agriculture Production Departement, State Politechnic of Jember
Mastrip street, PO Box 164, Jember 68281
*Corresponding author: ellyviana25@gmail.com

ABSTRACT

Coffee is one of the leading commodities in one of the plantation sub-sectors. Coffee has good market opportunities both at home and abroad. An important aspect of coffee cultivation is the process of breeding or propagation. Coffee seeds take a long time to germinate. The length of time the germination of coffee seeds is due to its physical dormancy. To get homogeneous viability, it is recommended to use GA3 (gibberellic acid), with a certain concentration to spur germination. Gibberelin is an artificial growth regulator which is closely related to growth because GA3 can control the synthesis of hydrolytic enzymes in seed germination. Gibberelin can solve the dormancy of seeds and shoots in a number of plants. This research was conducted for 3 months, from December 2018 to March 2019, on Jl Nusa Indah 7 RT 03 RW 07. This research was arranged in 5 treatments and 4 replications where each treatment consisted of 100 robusta coffee seeds. The treatments in this research consisted of G0 = 0 ppm, G1 = 500ppm, G2 = 1000 ppm, G3 = 1500 ppm, and G4 = 2000 ppm. This study wasdesigned using a Non Factorial Completely Randomized Design (CRD) with further testing using a polynomial contrast test.

Keywords: Robusta coffee seed, Gibberelin, Germination