UNIVERSITI TEKNOLOGI MARA

THE IMPACT OF DIFFERENT CONCENTRATIONS OF GIBBERELLIC ACID (GA_3) ON SEEDLING GROWTH PERFORMANCE OF COCOA (*Theobroma cacao)*

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Final year project submitted in partial fulfillment of the requirements of the degree of
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CANDIDATE'S DELARATION

I declare that the work in this Final Year Project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. The final year project report has not been submitted to other academic institution or non academic institution for any other degree or qualification.

In the event that my Final Year Project is found to violate the conditions mention above, I voluntarily waive the right of conferment of my bachelor degree and agree to be subject to the disciplinary rules and regulations of Universiti Teknologi MARA.

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ABSTRACT

Dormancy is a condition where the seeds unable to germinate even in a specified period of time even in the most favourable environmental conditions. Seed germination is predisposed by the environmental factors such as water, temperature, oxygen, chemicals and light conditions. In order to determine the effective Gibberellic Acid (GA_3) concentrations as treatment to break cocoa seed dormancy in cocoa seed and to evaluate the effect of Gibberellic Acid (GA_3) treatment on growth performance of cocoa seedlings, an experiment was conducted with 6 replications for each concentrations of Gibberellic Acid (GA_3) in a completely randomized design. Cocoa seeds were subjected to different treatments of Gibberellic Acid (GA_3) in different concentrations, embryo test, cutting by scalpel, soaking with 7% of sodium hypochlorite, sodium hypochlorite, cocoa seed soaked with different concentration of Gibberellic Acid (GA_3) at (100, 200, 300, 400, 500 mgL-1) for a period of 24 hour. Results showed concentrations does have slight effect, with the highest test dose showing better growth in all the parameters but it is not significant statistically.

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