THE EFFECT OF SOAKING DURATION AND SULFATE ACID CONCENTRATION ON SEED DORMANCY BREAKING OF PANGIUM

(Pangium edule Reinw)

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ABSTRACT

Pangium edule. Reinw is among widespread tree-shaped plant in Indonesia. Even though it is easily cultivated, the development of the plant is inhibited by many factors, among which is its long duration of generative propagation caused by both seed shell thickness and hardness. The purpose of the study was to break Pangium seed dormancy utilizing sulfate acid chemical-based scarification. The research was conducted in Agronomy Laboratory, Soil Laboratory, and experimental field of University of Mercu Buana of Yogyakarta throughout February to March 2018. The method of the experiment was 3x4 completely-randomized design with 4 replications. The factors were soaking duration (5, 10, 15 minutes) and sulfate acid concentrations (0%, 15%, 25% and 35%). The result analysis showed that there is an interaction between two factors in the seed germination rate. The 25% of sulfate acid solution concentration speeds up the seed germination and yields better seedling performance compared to the other treatments (0,15 and 35%).

Keywords: Pangium edule Reinw, dormancy breaking, sulfate acid