

# **SEED DORMANCY BREAKING WITH PHYSICAL, CHEMICAL AND MECHANICAL SCARIFICATION IN SENGON ( *Alzibia chinensis* )**

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## **ABSTRACT**

Sengon fruit is long and flat with a size between 10 - 18 mm. fruit width between 2 to 3.5 cm, fruit seeds are flat with a size of 7 mm wide by 5 mm long, when the seeds are ripe they will harden and become waxy. This type of hard and waxy seed coat on sengon is thought to make it difficult for water to penetrate the seeds, so special treatment is needed such as physical, mechanical, or chemical scarification. This study aims to find the best way of breaking dormancy of sengon seed. The research was carried out at the Wedomartani Garden of UPN "Veteran" Yogyakarta. The time of the study was carried out from March to April 2021. The study used a single experimental method, with a completely randomized design experiment consisting of 8 treatments. Mechanical scarification in the form of sanding, physical in the form of immersion in warm water with long soaking at temperatures (60 C and 70 C), chemical scarification treatment in the form of immersing a solution of  $H_2SO_4$  15 minutes with concentrations ( 70% and 80%) and  $KNO_3$  immersion, for 30 minutes with concentrations (1% and 2%). Observational data were analyzed by means variance at the 5% level of significance. To find out the difference between the treatments, it was further tested variance at the 5% level with test. The results showed that of all the growth treatments of sengon seedlings that were treated with mechanical, chemical treatment showed the best results with relatively the same value, on the growth of sengon seedlings. Observation of germination by giving treatment soaking a solution  $H_2SO_4$  of 80% with a soaking time of 15 minutes gave the best results compared to other treatments.

**Keywords:** Dormancy, Sengon Seed, Scarification