ABSTRACT

THE EFFECT OF MECHANICAL SCARIFICATION TREATMENT ON GERMINATION AND THE GROWTH OF AFRICAN WOOD SEEDLINGS (*Maesopsis emenii* Engl.)

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Mechanical scarification is one of the pre-treatment efforts for seeds aimed at accelerating seed germination and uniform growth of seedlings. Generative propagation of African wood has problems because the seeds have a hard and thick skin that is impermeable to water and gas which causes obstacles in the germination of African wood seeds so that it is necessary to pre-treat the seeds with mechanical scarification. This study aims to determine the effect of mechanical scarification treatment on germination and growth of African wood seedlings. The experiment used a randomized block design (RBD) which consisted of 5 treatments and was repeated 5 times. The mechanical scarification treatments tried were A = Without scarification (control), B = Seeds were sanded at the base of the seed, C = Seed was cracked, D = Seed was sanded throughout the seed, E = Seed was perforated at the base of the seed. The results showed that the mechanical scarification treatment had an effect on germination rate and germination speed, but had no effect on seedling growth (seedling height, stem diameter, number of leaves, leaf area, shoot dry weight, root dry weight and root decay ratio). Mechanical scarification by cracking and sanding at the base of the seed produces the best germination power and germination speed of African wood seeds.

Keywords : African wood, Germination, Growth of seedlings, Mechanical scarification