SEEDS SCARIFICATION METHODS FOR GERMINATION AND GROWTH OF SRIKAYA SEEDLING (*Annona squamosa* L.)

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ABSTRAC

Srikaya (Annona squamosa L.) seeds experience dormancy because they have thick, hard skin that is impermeable to water and gas which inhibits germination. The study aimed to determine the effect of seed scarification on the germination and growth of srikaya seedlings. This research is a laboratory and field experiment with a complete randomised design (CRD) in seeding and a complete randomised group design (CRGD) in nursery. The treatments in this study were: S0: without any treatment, S1: Sanding of seed tip, S2: Sanding of seed belly, S3: Sanding of the base of the seed, S4: H_2SO_4 soaking 20%, S5: H_2SO_4 soaking 30%, S6: Soaking with 100^oC hot water, S7: Soaking with 80^oC hot water, S8: Immersion with 60$^{\circ}C$ hot water. Observation data were analysed with Analysis of Variance (ANOVA) at 5% level and continued with Scott-Knott test. The results showed that the best treatment was scarification sanding on the seed stomach (S2) which had optimal values in all observation variables. Seed soaking treatment with 20% H2SO4 (S4) gave optimal results in the observation variables of germination, maximum growth potential, germination speed, plant height, number of leaves, root length and root volume. Seed soaking treatment with hot water at 60°C (S8) gave optimum results in terms of germination, maximum growth potential, germination speed, plant height, number of leaves, root length and root volume and plant fresh weight.

Key word : Srikaya, Scarification.