

**EFFECT OF SARCOTESTA RELEASE AND COCONUT WATER
CONCENTRATION ON THE VIABILITY OF PAPAYA SEEDS (*Carica
papaya* L.)**

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ABSTRACT

The ability of papaya seeds to germinate is influenced by the resistance of phenolic compounds which can inhibit germination. To overcome this problem, namely the treatment of sarcotesta and immersion in coconut water. The purpose of this study was to determine the treatment of the release of sarcotesta and the concentration of coconut water on viability. The research was conducted from May to June 2023. The research method used Completely Randomized Design (CRD) with two factors. The first factor was the treatment of the *sarcotesta* which consisted of S0: with *sarcotesta* and S1: without *sarcotesta*. The second factor is the concentration of coconut water which consists of K0: 0%, K1: 25%, K2: 50%, and K3: 75%. The data were analyzed using analysis of variance (ANOVA). If there is a significant effect of the treatment used, it will be followed by a different test using the DMRT (Duncan Multiple Range Test) test with a significance level of 5%. The results showed that there was no interaction between the sarcotesta treatment and the concentration of coconut water on papaya seed viability. Seed treatment with *sarcotesta* (S0) and without *sarcotesta* (S1) had no significant difference on plant height and dry weight parameters. Seeds without *sarcotesta* (S1) were significantly higher than seeds with *sarcotesta* (S0) on the parameters of germination, maximum growth potential, vigor index, and root length. The treatment of 25% (K1) and 50% (K2) coconut water concentration has a higher percentage of germination and growth potential than the treatment of 0% coconut water concentration.

Keywords: Papaya, *sarcotesta*, coconut water, viability.