

MUCUNA SEEDLING GROWTH RESPONSE (*Mucuna bracteata*) ON THE CONCENTRATION AND DURATION OF SOAKING IN YOUNG COCONUT WATER

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ABSTRACT

Mucuna bracteata is ground cover crops (legumes) which are widely used in plantations such as oil palm and rubber usage. *Mucuna bracteata* is highly suitable for rejuvenating oil palm plants due to its high organic matter content. However, direct planting of *Mucuna* seeds is not possible. One effective alternative to address this issue is the application of natural plant growth regulators (PGRs). This study aimed to determine the effect of young coconut water concentration and soaking time on *Mucuna* germination. (*Mucuna bracteata*), which was carried out from June 2023 to September 2023 at the PT Ekadura Indonesia Nursery, Old Town, Kunto Darussalam, Old Town, Kunto Darussalam, Rokan Hulu Regency. The experimental design used for this study was a Factorial Randomized Block Design (RAKF), which consisted of 2 factors. Each experimental unit had 5 plants, so the total number of plants in this study was 135 plants. The treatments used were D0P1 (0% coconut water concentration + 3 hours of soaking time), D1P2 (25% coconut water concentration + 6 hours of soaking time), D2P3 (50% coconut water concentration + 9 hours of soaking time). From the results of the study, the D2P3 treatment (50% coconut water concentration + 9 hours of soaking time) showed the best results in terms of wet weight, dry weight of seedlings, seedling height and root volume of germination.

Keywords : Plant Growth Regulator, Coconut Water, *Mucuna bracteoles*