EFFECT OF THE COMPOSITION OF PLANTING MEDIA AND LIQUID ORGANIC FERTILIZER OF RICE WASHING WATER ON THE EARLY GROWTH OF COCOA (Theobroma cacao L.) ICCRI-08 H CLONE

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ABSTRACT

Cocoa is a plantation crop that can boost the Indonesian economy. Cacao production in large-scale nurseries is hampered by the lack of water availability for the irrigation process. Cocoa plants, on the other hand, need water to grow well. In overcoming the problem, namely the use of media, one thing that needs to be considered is the selection of planting media that can absorb well and is able to withstand large amounts. Rice husk charcoal planting media is one solution to overcome this problem as well as adding POC (Liquid Organic Fertilizer) to rice washing water as supporting nutrients in the planting media. The aim of this research was to determine the effect of planting media and liquid organic fertilizer from rice washing water on the growth of cocoa seedlings. This research was conducted from September 2023 to January 2024 on the Jember State Polytechnic Innovation Garden. The method used was a Randomized Block Factorial Design (RAKF) with 2 factors and 3 replications. The first factor is the planting media which consists of 3 levels including M1 (top soil: sand) ratio 1:1, M2 (top soil: sand: husk charcoal) ratio 1:1:1, M3 (top soil: sand: husk charcoal) ratio 1:1:2. The second factor is liquid organic fertilizer from rice washing water which includes B0 (as control), B1 (100 ml/polybag), B2 (200 ml/polybag), B3 (300 ml/polybag). The results of the research that has been carried out show that the composition of the planting media and liquid organic fertilizer from rice washing water shows no significant interaction effect on the parameters of plant height, number of leaves, stem diameter, root length, root wet weight and root dry weight.

Keywords: Cocoa, Planting Media, Liquid Organic Fertilizer Rice Washing Water