EFFECT OF PLANT MEDIA COMPOSITION AND WATER TEMPE WASTE ON COCOA GROWTH (*Theobroma cacao* L)

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ABSTRACT

Cocoa is a plantation crop that has economic value and is a source of foreign exchange for the country. One way to optimize growth is in the nursery and production phase. The research was conducted with the aim of knowing how the effect of the composition of the planting media and tempe wastewater on the growth of cocoa (Theobroma cacao L.). The research was carried out in the Saung area of the Jember State Polytechnic, Sumbersari District - Jember from September 2022 to January 2023. The study used a factorial randomized block design, with 2 factors. The first factor is the composition of the topsoil planting medium: Manure: Sand which consists of 3 levels, namely: 2:1:1 (A1), 1:2:1 (A2), 1:1:2 (A3). The second factor is tempe wastewater: EM4: Aquadest which consists of 3 levels, namely: 300 ml: 100 ml: 600 ml (B1), 500 ml: 100 ml: 400 ml (B2), 600 ml: 100 ml: 300 ml (B3). The results showed no significant differences in the parameters of leaf number, stem diameter, root length, root dry weight, root fresh weight, and were significantly different for plant height parameters.

Keywords: Cocoa, Growing Media, Tempe Wastewater