

Pengaruh Aplikasi Mikoriza Arbuskular Terhadap Pertumbuhan Bibit Kopi Liberika (*Coffea liberica*) Pada Kondisi Cekaman Kekeringan. *The Effect of Arbuscular Mycorrhizal Application on the Growth of Liberica Coffee Seedlings (Coffea Liberica) Under Drought Stress Conditions.* Pembimbing: Elly Daru Ika Wilujeng, S.P., M.Si

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ABSTRACT

Coffee is a plantation export commodity that plays an important role in the Indonesian economy. However, farmers still face various challenges, one of which is the prolonged dry season. The long dry season causes the death of coffee trees, resulting in decreased yields. This study aims to determine the effect of arbuscular mycorrhizal application on the growth quality of Liberica coffee seedlings under drought stress conditions. The research activities were carried out at the Seed Production Technique Experimental Field, Department of Agricultural Production, Jember State Polytechnic. The research design used was a factorial Completely Randomized Design (CRD) with two factors. The first factor is Arbuscular Mycorrhizal consisting of No Mycorrhizal M0 (0 g/plant), M2 (20 g/plant), and M3 (30 g/plant). The second factor is watering consisting of K1 (once every 3 days), K2 (once every 5 days), K3 (once every 7 days). Data were analyzed using ANOVA (Analysis of Variance). If the results show a significant or very significant difference, further testing is carried out using the Smallest Significant Difference (LSD) at the 5% or 1% level. The results of the study indicate that the interaction between arbuscular mycorrhizal application (M) and watering frequency (K) has no significant effect on all observed parameters.

Key Words *Liberica Coffee Seeds, Drought Stress, Arbuscular Mycorrhiza*