RESPONSE OF APPLICATION OF ARBUSCULAR MYCORORIZA BIODIVERSITY AND VARIOUS LEVELS OF WATER STRESS TO PRODUCTION PRODUCTS OF PEANUT (*Arachis hypogaea L.*)

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ABSTRACT

The purpose of this study was to determine the response of arbuskular mycorrhizal biofertilizer application and various levels of water stress on the yield of peanut (*Arachis hypogaea L.*). This research was conducted from July 1, 2022 to October 1, 2022 at the Screen House of the Jember State Polytechnic, using a 2-factor Completely Randomized Design. The first factor is the application of mycorrhizal biofertilizers: 10 grams/plant, 20 grams/plant, 30 grams/plant. The second factor is various levels of water stress: every 2 days, every 4 days, every 6 days, every 8 days. The variables observed were root dry root weight, stem dry root weight, wet pod weight per sample, dry pod weight per sample, wet pod weight per plot, dry pod weight per plot, dry seed weight per plant, dry seed weight per plot, and weight of 100 seeds per plot. Based on the results of the study, the combination of arbuskular mycorrhizal biological fertilizer application treatment of 20 g/plant and the level of water stress every 2 days affected the dry weight of stem safe, wet pod weight per plot, and dry seed weight per plot. Combination of biological fertilizer application treatment.

Keywords: Arbuskular Mycorrhizal Fertilizer; Water Stress; Peanuts