

**PEMANFAATAN CENDAWAN MIKORIZA
ARBUSKULAR UNTUK PERTUMBUHAN TANAMAN
SORGUM (*Sorghum bicolor* L. Moench) PADA ULTISOL**

SKRIPSI

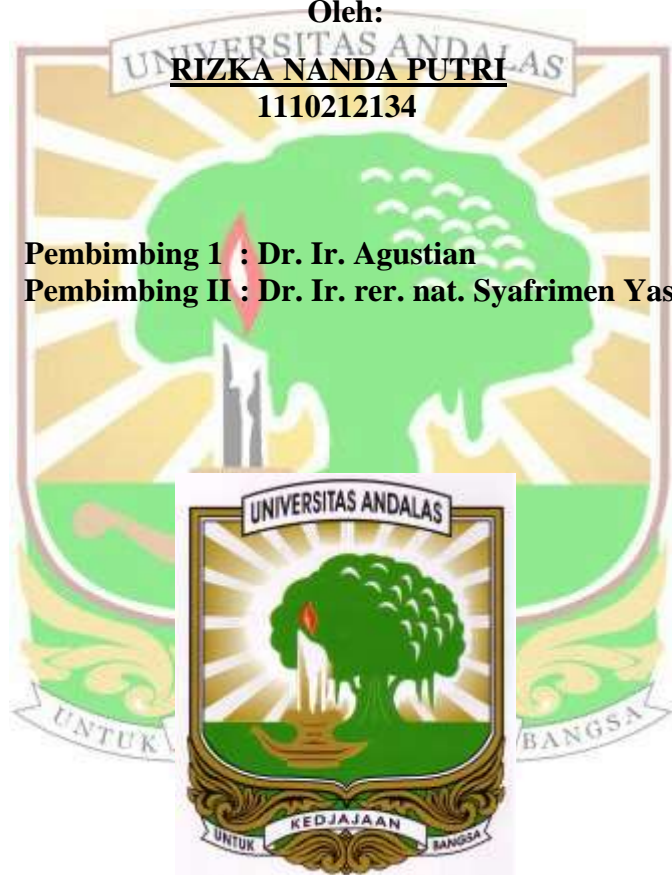
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ABSTRAK

Mikoriza sudah diketahui peranannya dalam membantu pertumbuhan tanaman terutama pada tanah yang miskin unsur hara seperti Ultisol. Penelitian ini bertujuan untuk melihat bagaimana pertumbuhan tanaman sorgum selama fase vegetatif, dan serapan hara tanaman sorgum pada Ultisol dengan bantuan cendawan mikoriza arbuskula. Rancangan yang digunakan adalah rancangan acak lengkap dengan 5 perlakuan dan 3 ulangan. Hasil penelitian menunjukkan pemberian cendawan mikoriza berbagai perlakuan menunjukkan nilai pertumbuhan dan serapan hara yang berbeda antar perlakuan dengan perlakuan 0g CMA/polybag (A) tinggi tanaman sorgum 165,83cm, serapan hara N 0,80%, P 0,22%, K 0,74%. Perlakuan 10g CMA/polybag (B) tinggi tanaman sorgum 180,00cm, serapan hara N 1,21%, P 0,33%, K 0,88%. Perlakuan 20g CMA/polybag (C) tinggi tanaman sorgum 171,50cm, serapan hara N 1,11%, P 0,24%, K 0,79%. Perlakuan 30g CMA/polybag (D) tinggi tanaman sorgum 190,00cm, serapan hara N 1,62%, P 0,34%, K 0,98%. Perlakuan 40g CMA/polybag (E) tinggi tanaman sorgum 182,00cm, serapan hara N 1,02%, P 0,32%, K 0,73%. Dari hasil tersebut dapat disimpulkan bahwa pemberian mikoriza belum berpengaruh nyata terhadap pertumbuhan tanaman sorgum yang di tanam pada Ultisol dan serapan haranya.

Kata Kunci : Cendawan Mikoriza Arbuskula, Sorgum, Serapan hara N,P,K



UTILIZATION OF A ARBUSCULAR-MYCORRHIZAL FUNGUS FOR SORGHUM (*Sorghum bicolor L. Moench*) PLANT GROWTH ON ULTISOL

ABSTRACT

Mycorrhiza fungi are known to play a role in helping plant growth, especially in nutrient-poor soils such as Ultisol. The study aimed to determine sorghum plant growth and nutrient uptake in the presence of a arbuscular- mycorrhizal fungus. A completely randomized design with 5 treatments and 3 replicates. Was used show different values for growth plant height and nutrient uptake were obtained with the different treatments. With 0g arbuscular mycorrhizal fungus per polybag average plant height was 165,83cm and uptake of N, P, and K was 0,80%, 0,22% and 0,74%, respectively. With 10g arbuscular mycorrhizal fungus per polybag average plant height was 180,00cm and uptake of N, P, and K was 1,21%, 0,33% and 0,88%, respectively. With 20g arbuscular mycorrhizal fungus per polybag average plant height was 171,50cm and uptake of N, P, and K was 1,11%, 0,24% and 0,79%, respectively. With 30g arbuscular mycorrhizal fungus per polybag average plant height was 190,00cm and uptake of N, P, and K was 1,62%, 0,34% and 0,98%, respectively. With 40g arbuscular mycorrhizal fungus per polybag average plant height was 182,00cm and uptake of N, P, and K was 1,02%, 0,32% and 0,73%, respectively. It can be concluded that the administration of this arbuscular-mycorrhizal fungus did not significantly affected the growth of sorghum plants on Ultisol nor their uptake of nutrients.

Keywords : Mycorrhizal arbuskular fungus, Sorghum, Nutrient Uptake N,P,K

