

**PENGARUH INOKULASI CENDAWAN MIKORIZA ARBUSKULA
HASIL ISOLASI PERKEBUNAN SENGON TERHADAP
PERTUMBUHAN KANGKUNG DARAT**
(*Ipomoea reptans* Poir)

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ABSTRAK

Penurunan kualitas tanah merupakan salah satu permasalahan dalam pertanian di Indonesia. Petani secara masal mulai menggunakan pupuk anorganik. Keadaan ini menimbulkan terjadinya degradasi kesuburan lahan pertanian. Salah satu alternatif pupuk hayati yang baik terhadap kualitas tanah dan dapat meningkatkan pertumbuhan tanaman adalah Cendawan Mikoriza Arbuskula. Penelitian ini bertujuan untuk mengetahui pengaruh inokulasi cendawan mikoriza arbuskula terhadap pertumbuhan tanaman kangkung darat (*Ipomoea reptans* Poir). Penelitian ini merupakan penelitian eksperimental menggunakan rancangan acak kelompok (RAK) dengan 5 perlakuan inokulum cendawan mikoriza arbuskula meliputi P0 (Kontrol), P1(5 g/tanaman), P2 (10 g/tanaman), P3 (15 g/tanaman) dan P4 (20 g/tanaman) yang diulang sebanyak 5 kali, dengan media tanam campuran arang sekam dan zeolite selama 5 minggu penanaman. Hasil menunjukkan bahwa pemberian inokulum cendawan mikoriza arbuskula memberikan pengaruh nyata pada taraf 5% terhadap tinggi tanaman, jumlah daun, panjang akar, berat segar dan berat kering tanaman. Perlakuan pemberian inokulum cendawan mikoriza arbuskula didapatkan hasil terbaik meningkatkan pertumbuhan kangkung darat adalah 10 g/tanaman. Tinggi tanaman (47,92 cm), jumlah daun (25,8 helai), panjang akar (37,80 cm), berat segar tanaman(49,40 gram) dan berat kering tanaman(5,93 gram). Persentase infeksi akar terbaik pada perlakuan 10 g/tanaman sebesar 57 % dengan kriteria tinggi berdasarkan infeksi akar. Genus spora yang ditemukan yaitu *glomus sp*, *acaulospora*, *gigaspora* dan *scutellospora* serta jumlah spora tertinggi yaitu pada perlakuan 20 g/tanaman sebesar 85,33 spora/50g tanah.

Kata kunci: cendawan mikoriza arbuskula, kangkung darat, pertumbuhan, spora

**EFFECT INOCULATION OF ARBUSCULA MYCORRHIZAL FUNGI
ISOLATED FROM SENGON PLANTATIONS ON THE
GROWTH OF LAND KALE (*Ipomoea reptans* Poir.)**

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ABSTRACT

The decline in soil quality is one of the problems in agriculture in Indonesia. Farmers en masse began to use inorganic fertilizers. This situation causes the degradation of agricultural land fertility. One alternative to biological fertilizers that is good for soil quality and can increase plant growth is arbuskula mycorrhizal fungus. This study aims to determine the influence of the inoculant fungus mycorrhiza arbuscula on the growth of land kale plants (*Ipomoea reptans* Poir). This study was an experimental study using a randomized group design (RAK) with 5 treatments of arbuskula mycorrhizal fungus levels including P0 (Control), P1 (5 g / plant), P2 (10 g / plant), P3 (15 g / plant) and P4 (20 g / plant) which were repeated 5 times, with a planting medium of a mixture of husk charcoal and zeolite for 5 weeks of planting. The results showed that the application of inoculants of arbuskula mycorrhizal fungi had a noticeable influence on the level of 5% on plant height, number of leaves, root length, fresh weight and dry weight of the plant. The treatment of inoculant administration of arbuskula mycorrhizal fungus was obtained the best result of increasing the growth of ground kale was 10 g / plant. Plant height (47.92 cm), number of leaves (25.8 strands) at the treatment of 5 g / plant and 10 g / plant, root length (37.80 cm), fresh weight (49.40 grams) and dry weight (5.93 grams). The best percentage of root infections at the 10 g/ plant treatment was 57% with high criteria based on root infections. The genus of spores found were *glomus* sp, *acaulospora*, *gigaspora* and *scutellospora* and the highest number of spores was in the treatment of 20 g / plant of 85.33 spores / 50g of soil.

Keywords: arbuskula mycorrhizal fungus, ground kale, growth, spore