

PENGARUH SISTEM OLAH TANAH TERHADAP EFEKTIFITAS APLIKASI MIKORIZA PADA TANAMAN JAGUNG MANIS (*Zea mays saccharata sturt*) DI TANAH REGOSOL

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INTISARI

Tujuan penelitian ini yaitu mengetahui pengaruh sistem pengolahan tanah dan menentukan olah tanah yang paling sesuai terhadap efektifitas aplikasi Mikoriza Vesikular Arbuskular (MVA) pada pertumbuhan dan hasil tanaman jagung manis

Penelitian ini dilakukan dengan metode eksperimental menggunakan Rancangan Acak Blok Lengkap (RAKL), faktor tunggal, terdiri dari 4 perlakuan yaitu tanaman jagung manis yang diinokulasi mikoriza ditanam pada tanah Regosol tanpa olah tanah (T0), olah tanah minimal (T1), olah tanah sempurna (T2) dan olah tanah konservasi + mulsa organik (T3). Parameter yang diamati meliputi jumlah spora mikoriza, persentase infeksi, proliferasi akar, panjang akar, bobot segar akar, bobot kering akar, tinggi tanaman, jumlah daun, luas daun, bobot segar tanaman, bobot kering tanaman, bobot segar tongkol berkelobot, bobot segar tongkol tanpa kelobot, diameter tongkol dan potensi hasil panen.

Hasil penelitian menunjukkan perlakuan pengolahan tanah memberikan pengaruh yang berbeda nyata pada parameter jumlah spora mikoriza, bobot tongkol berkelobot dan diameter tongkol. Perlakuan olah tanah konservasi + mulsa organik cenderung memberikan pengaruh lebih baik pada efektifitas mikoriza dan hasil jagung manis yaitu 18,93 ton/hektar.

Kata kunci : Pengolahan tanah, Mikoriza, Jagung manis.

ABSTRACT

The purpose of this research was the effect of soil treatment system and determine the most appropriate soil to the effectiveness of Vesicular Arbuscular Mycorrhizal (VMA) on growth and yield of sweet corn crops.

This research was conducted with experimental method in field experiment using Randomized Completely Block Design (RCBD) with single factor and consisted 4 treatments which was sweet corn crops inoculated with mycorrhiza planted on Regosol soil. The treatments which used are zero tillage(T0), minimum tillage (T1), maximum tillage (T2) and conservation tillage + organic mulch (T3). The parameters observed included the number of mycorrhizal spores, percentage of infection, root proliferation, root length, fresh root weight, root dry weight, plant height, leaf number, leaf area, fresh weight of plant, dry weight of plant, fresh weight of cobs weighted, fresh weight of cob without the cob, diameter of cob and potential of crop.

The results showed that the treatment of soil treatment gave a significantly different effect on the parameters of the number of mycorrhizal spores, the weight of the cobs and the diameter of the corncob. Soil conservation + organic mulch treatment has a better effect on mycorrhizal effectiveness and sweet corn yield is 18,93 ton/hectare.

Keywords: *Soil processing, Mycorrhizae, Sweet corn.*