

## ABSTRAK

**Masliah Dwi Agustina. 2020. Pengaruh Aplikasi Fungi Mikoriza Arbuskula dan Ragam Bahan Organik Terhadap Pertumbuhan dan Hasil Tanaman Jagung Manis (*Zea mays saccharata*) Varietas Talenta Pada Tanah Pasca Galian C. Dibawah bimbingan Cecep Hidayat dan Yati Setiati.**

Tanah pasca galian C memiliki tingkat kualitas yang buruk untuk dijadikan media tanam untuk pertumbuhan jagung manis, sehingga perlu dilakukan penambahan agen hayati dan bahan organik untuk meningkatkan kualitas kesuburan tanah, yakni dengan pemberian FMA dan ragam bahan organik yang berupa bokashi paitan, pupuk kandang ayam dan asam humat. Penelitian ini bertujuan untuk mengetahui pengaruh FMA dan jenis bahan organik dalam meningkatkan pertumbuhan serta hasil tanaman jagung manis varietas Talenta. Penelitian ini dilaksanakan pada bulan Januari sampai bulan Mei 2020. Penelitian dilaksanakan di Lahan Kampus II UIN Sunan Gunung Djati Bandung. Metode yang digunakan pada penelitian ini yakni Rancangan Acak Kelompok Faktorial 2 faktor. Faktor pertama yakni FMA sebanyak tiga taraf, kontrol  $0 \text{ g tanaman}^{-1}$ ,  $5 \text{ g tanaman}^{-1}$ ,  $10 \text{ g tanaman}^{-1}$ . Faktor kedua yakni ragam bahan organik sebanyak empat taraf, kontrol tanpa bahan organik, bokashi paitan  $15 \text{ t ha}^{-1}$ , pupuk kandang ayam petelur  $15 \text{ t ha}^{-1}$ , asam humat  $6 \text{ l ha}^{-1}$ . Hasil penelitian menunjukkan terjadi interaksi FMA dan bahan organik terhadap luas daun, terjadi pengaruh mandiri pemberian FMA terhadap derajat infeksi, terjadi pengaruh mandiri bahan organik terhadap derajat infeksi, tinggi tanaman, luas permukaan akar, diameter tongkol, panjang tongkol dan bobot tongkol berkelobot. Dari penelitian ini pemberian bokashi paitan dan pupuk kandang ayam menunjukkan pengaruh yang paling baik terhadap pertumbuhan dan hasil tanaman jagung manis.

Kata Kunci: Tanah galian C, FMA, bahan organik, jagung manis Talenta

## ABSTRACT

**Masliah Dwi Agustina. 2020. Effect of Arbuscular Mycorrhizal Fungi Application and Variety of Organic Materials on Growth and Yield of Sweet Corn (*Zea mays saccharata*) Talent Varieties in Post Galian Soil C. Under the guidance of Cecep Hidayat and Yati Setiati.**

Sand pit soil has a poor level of quality to be used as a planting medium for the growth of sweet corn, so it is necessary to add biological agents and organic matter to improve the quality of soil fertility, namely by giving FMA and a variety of organic materials in the form of paitan bocation, chicken manure and humic acid. This study aims to determine the effect of AMF and types of organic matter in increasing growth and yield of Talenta varieties of sweet corn. This research was conducted in January to May 2020. The research was conducted at Campus II of UIN Sunan Gunung Djati Bandung. The method used in this study is 2 Factorial Randomized Block Design. The first factor was three levels of AMF, control of 0 g plant<sup>-1</sup>, 5 g plant<sup>-1</sup>, 10 g plant<sup>-1</sup>. The second factor is the range of organic matter as many as four levels, control without organic matter, paitan bocation 15 t ha<sup>-1</sup>, layer chicken manure 15 t ha<sup>-1</sup>, humic acid 6 l ha<sup>-1</sup>. The results showed the interaction of FMA and organic matter on leaf area, there was an independent effect of giving FMA to the degree of infection, there was an independent effect of organic matter on the degree of infection, plant height, root surface area, ear diameter, ear length and weight of cob with cob. From this study the administration of bokashi paitan and chicken manure showed the best effect on the growth and yield of sweet corn plants.

Keywords: Sand pit soil, FMA, organic matter, Sweet corn variety of Talenta