INTISARI

Tujuan penelitian untuk mengetahui pengaruh inokulasi MVA dan kotoran walet terhadap pertumbuhan dan hasil jagung manis pada tanah pasir dan mendapatkan imbangan yang paling tepat antara SP-36, MVA dan kotoran Walet . Penelitian dilaksanakan di *Green House*. Laboratorium Agrobioteknologi dan Laboratorium penelitian Fakultas Pertanian UMY, pada bulan Januari – September 2017.

Penelitian menggunakan metode percobaan dilakukan dalam polybag dengan perlakuan rancangan faktor tunggal yang disusun dalam Rancangan Lingkungan Acak Lengkap (RAL) yang terdiri atas 5 perlakuan sebagai berikut : Pupuk SP-36 100 % dosis anjuran + MVA (A), Pupuk SP- 36 75 % dosis anjuran + Kotoran Walet 25 % + MVA (B), Pupuk SP-36 75 % dosis anjuran + kotoran walet 25 % (C), Pupuk SP-36 50 % dosis anjuran + Kotoran Walet 50 % + MVA (D) dan Pupuk SP - 36 50 % dosis anjuran + Kotoran Walet 50 %. Parameter yang diamati meliputi jumlah spora mikoriza, presentase infeksi, isolasi dan identifikasi bakteri pelarut fosfat, panjang akar, bobot segar akar, bobot kering akar, tinggi tanaman, jumlah daun, luas daun, bobot segar tanaman, bobot kering tanaman, jumlah baris per tongkol, diameter tongkol bobot tongkol berkelobot, bobot tongkol tanpa ekonomis, dan potensi hasil panen.

Hasil penelitian menunjukkan bahwa tidak ada interaksi yang signifikan antara MVA dan kotoran walet terhadap pertumbuhan dan hasil jagung manis. Pemberian pupuk SP-36 75 % dan kotoran walet 25 % pada jagung manis memberikan hasil tertinggi pada jumlah daun dan bobot tongkol ekonomis di tanah pasir pantai.

Kata kunci: Mikoriza, Kotoran Walet dan Jagung Manis

ABSTRACT

This reasearch aims to comprehend the reaction of VMA inoculation and swallow dung on the growth of sweet corn on the sand field. It also aims to obtain the best and the most appropriate Phosphorus Fertilizer of all treatment toward the growth of sweet corn in the beach sand. This research is conducted on January–September of 2017 in the Green House, Laboratorium of Agrobiotechnology and Research Laboratorium of Faculty of Agriculture, UMY.

This research is conducted with the design of compiled single factor Completely Randomized Design (CRD) and consist of 5 treatments such as : Fertilizer SP-36 100% of recommended dosage + MVA (A). Fertilizer SP-36 75% of recommended dosage + swallow dung 25% + MVA (B), Fertilizer SP-35 75% of recommended dosage, swallow dung 25% (C), Fertilizer SP-36 50% of recommended dosage, swallow dung 50%. The observed parameters were the number of mychorrhizal spores, infection percentage, isolation and identification of bacterial solvent phosphat, root length, fresh root length, dry root weight, plant height, leaf number, leaf area, fresh plant weight, dry plant of weight, number of rows per cob, diameter of cob, dry weight of plant, fresh weight of cobs weighted, uneconomical weight of cob and potential of crop.

The research result showed that the application of fertilizer SP-36 75% and swallow dung 25% in th sweet corn gave the best result of the leaf number and economical weight of cob in the coastal area.

***Keywords** : Mikoriza, swallow dung, and sweet corn.*