RINGKASAN

Penelitian ini dilaksanakan di Jalan Karya Tani Kelurahan Pangkalan Mansyur, Kecamatan Medan Johor, Kota Medan, Provinsi Sumatera Utara dengan ketinggian tempat ± 26 m dpl (diatas permukaan laut) dengan topografi datar. Penelitian ini dilaksanakan pada Bulan November 2021 sampai dengan Bulan Maret 2022. Penelitian bertujuan untuk mengetahui respon pertumbuhan dan produksi tanaman jagung manis terhadap pemberian olahan tandan kosong kelapa sawit (TTKS).

Penelitian ini menggunakan model Rancangan Acak Kelompok (RAK) non faktorial, dengan perlakuan olahan tandan kosong kelapa sawit dengan berbagai macam bahan organik dan anorganik terdiri dari 5 taraf perlakuan, yaitu: P_0 = Pupuk Majemuk NPK 16:16:16 yang di Rekomendasikan (30 g/plot), P_1 = Pemberian Olahan TKKS (500 g/plot) + Kotoran Ayam (200 g/plot), P_2 = Pemberian Olahan TKKS (500 g/plot) + Kotoran Lembu (200 g/plot), P_3 = Pemberian Olahan TKKS (500 g/plot) + Limbah Padat Solid (200 g/plot), P_4 = pemberian Olahan TKKS (500 g/plot) + Pupuk NPK (200 g/plot). Parameter yang diamati adalah tinggi tanaman, diameter batang, panjang tongkol, diameter tongkol, jumlah baris per tongkol dan bobot tongkol per tanaman.

Hasil penelitian menunjukkan bahwa pemberian olahan TKKS plus berpengaruh nyata terhadap peningkatan tinggi tanaman, diameter batang dan jumlah baris per tongkol, namun berpengaruh tidak nyata terhadap panjang tongkol, diameter tongkol dan bobot tongkol per tanaman. Secara umum perlakuan P_4 (olahan TKKS + pupuk NPK) memberikan hasil terbaik terhadap pertumbuhan dan produksi tanaman jagung manis dengan memperlihatkan hasil tertinggi pada seluruh parameter yang diamati.

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SUMMARY

This rescobch was conducted on Jalan KaryaTani, Pangkalan Mansyur, Medan Johor District, Medan City, North Sumatra Province with an altitude of ± 26 meters above sea level with a flat topography. This rescobch was conducted from November 2021 to March 2022. The aim of this study was to determine the response of growth and production of sweet corn to the of giving empty fruit bunches of oil palm plus.

This study uses a non-factorial Randomized Block Design (RBD) model, with the treatment of oil palm empty fruit bunches plus with various organic and inorganic materials consisting of 5 levels of treatment, namely:P0 = Recommended NPK 16:16:16 Compound Fertilizer (30 g/plot), P1 = oil palm empty fruit bunches (500 g/plot) + Chicken Manure (200 g/plot), P2 = oil palm empty fruit bunches (500 g/plot) + Cow Manure (200 g/plot), P3 = oil palm empty fruit bunches (500 g/plot) + Solid Solid Waste (200 g/plot), P4 = oil palm empty fruit bunches (500 g/plot) + NPK Fertilizer (200 g/plot). Parameters observed were plant height, stem diameter, length of cob, diameter of cob, number of rows per cob and weight of cob per plant.

The results showed that the oil palm empty fruit bunches plus had a significant effect on the increase in plant height, stem diameter and number of rows per cob, but had no significant effect on the length of the cob, diameter of the cob and weight of the cob per plant. In general, the P4 treatment (oil palm empty fruit bunches + NPK fertilizer) gave the best results on the growth and production of sweet corn plants by showing the highest yields on all observed parameter.