

RINGKASAN

Penelitian ini dilaksanakan di lahan sawah di desa Sei Mencirim, Kecamatan Sunggal, Kabupaten Deli Serdang, Provinsi Sumatera Utara. Ketinggian tempat ± 50 mdpl dengan topografi datar. Penelitian ini dilaksanakan pada bulan Agustus 2021 sampai dengan bulan Desember 2021. Penelitian bertujuan untuk mengetahui perbedaan beberapa dosis pupuk P terhadap pertumbuhan dan produksi tanaman jagung hibrida BISI 18 dilahan sawah. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) non faktorial dengan perlakuan dosis pupuk P dengan 7 taraf perlakuan yaitu : P_0 = Kontrol (0 g/plot), P_1 = 50 kg/ ha (50 g/plot), P_2 = 100 kg/ha (100 g/plot), P_3 = 150 kg/ha (150 g/plot), P_4 = 200 kg/ha (200 g/plot), P_5 = 250 kg/ha (250 g/plot) dan P_6 = 300 kg/ha (300 g/plot). Parameter yang diamati adalah tinggi tanaman, jumlah daun, diameter batang, panjang tongkol, diameter tongkol, bobot tongkol berklobot, bobot tongkol tanpa klobot, jumlah baris per tongkol dan jumlah biji per baris.

Hasil penelitian menunjukkan bahwa Aplikasi pemupukan Fosfat dengan dosis 200 g/plot mampu meningkatkan tinggi tanaman, jumlah daun, diameter batang, diameter tongkol, bobot tongkol berklobot dan bobot tongkol tanpa klobot dan berbeda nyata dengan pemberian dosis lainnya, tetapi tidak berpengaruh nyata terhadap panjang tongkol, jumlah baris per tongkol dan jumlah biji per baris. Terjadi penurunan kembali terhadap pertumbuhan dan hasil tanaman jagung Bisi 18 pada dosis yang lebih tinggi yaitu dosis 250 g/plot dan 300 g/plot.

Kata Kunci : Tanaman Jagung, Pupuk P, Lahan Sawah

SUMMARY

This research was conducted in rice fields in Sei Mencharim village, Sunggal sub-district, Deli Serdang district, North Sumatra province. The altitude of the place is ± 50 meters above sea level with a flat topography. This research was carried out from August 2021 to December 2021. The aim of the study was to determine the difference between several doses of P fertilizer on the growth and production of BISI 18 hybrid corn in paddy fields. This study used a non-factorial Randomized Block Design (RBD) with P fertilizer dose treatment with 7 treatment levels, namely: P0 = Control (0 g/plot), P1 = 50 kg/ha (50 g/plot), P2 = 100 kg/ ha (100 g/plot), P3 = 150 kg/ha (150 g/plot), P4 = 200 kg/ha (200 g/plot), P5 = 250 kg/ha (250 g/plot) and P6 = 300 kg/ha (300 g/plot). Parameters observed were plant height, number of leaves, stem diameter, length of ear, diameter of ear, weight of cob, weight of cob without cob, number of rows per ear and number of seeds per row.

The results showed that the application of Phosphate fertilization at a dose of 200 g/plot was able to increase plant height, number of leaves, stem diameter, ear diameter, cob weight and cob weight without cob and significantly different from other doses, but had no significant effect on cob length. , the number of rows per ear and the number of seeds per row. There was a decrease in growth and yield of Bisi 18 maize at higher doses, namely 250 g/plot and 300 g/plot.

Keywords: Corn Plants, P Fertilizer, Rice Field