

## RINGKASAN

Penelitian ini dilaksanakan di lahan Percobaan Fakultas Pertanian Universitas Islam Sumatra Utara, Jl. Karya Wisata, Gedung Johor, Kecamatan Medan Johor, Kota Medan, dengan ketinggian tempat  $\pm 25$  meter di atas permukaan laut. Penelitian ini dimulai bulan Januari 2022 sampai bulan April 2022. Penelitian bertujuan untuk mengetahui respon pertumbuhan dan produksi tanaman jagung manis terhadap pemberian kotoran kambing dan pupuk NPK. Penelitian ini menggunakan Rancangan Acak kelompok (RAK) faktorial, dengan dua faktor penelitian yang diuji. Faktor I : Pemberian kotoran kambing yang terdiri dari 4 taraf perlakuan yaitu :  $K_0 = 0$  ton/ha (kontrol),  $K_1 = 5$  ton/ha = 2 kg/plot,  $K_2 = 10$  ton/ha = 4 kg/plot dan  $K_3 = 15$  ton/ha = 6 kg/plot. Faktor II : Pemberian pupuk NPK yang terdiri dari 3 taraf perlakuan yaitu :  $N_0 = 0$  kg/ha (kontrol),  $N_1 = 100$  kg/ha = 10 gr/plot dan  $N_2 = 200$  kg/ha = 20 gr/Plot. Parameter yang diamati adalah tinggi tanaman, panjang tongkol, diameter tongkol, bobot tongkol per tanaman, produksi tongkol per plot dan produksi tongkol per hektar.

Hasil penelitian menunjukkan bahwa pemberian kotoran kambing nyata meningkatkan tinggi tanaman dan produksi tongkol jagung, namun berpengaruh tidak nyata terhadap panjang tongkol, diameter tongkol dan bobot tongkol per tanaman. Pemberian pupuk NPK nyata meningkatkan tinggi tanaman, panjang tongkol, bobot tongkol per tanaman dan produksi tongkol namun berpengaruh tidak nyata terhadap diameter tongkol jagung. Interaksi pemberian kotoran kambing dan pupuk NPK berpengaruh tidak nyata terhadap seluruh parameter yang diamati.

*Kata Kunci : Tanaman Jagung Manis, Kotoran Kambing, Pupuk NPK*

## SUMMARY

This research was conducted at the Experimental Field of the Faculty of Agriculture, Islamic University of North Sumatra, Jl. Tourism Work, Johor Building, Medan Johor District, Medan City, with a height of  $\pm 25$  meters above sea level. This research began in January 2022 until April 2022. The aim of this research was to determine the response of the growth and production of sweet corn plants to the application of goat manure and NPK fertilizer. This study used a Factorial Randomized Block Design (RBD), with two research factors being tested. Factor I: Administration of goat manure which consisted of 4 treatment levels, namely:  $K_0 = 0$  tons/ha (control),  $K_1 = 5$  tons/ha = 2 kg/plot,  $K_2 = 10$  tons/ha = 4 kg/plot and  $K_3 = 15$  tons/ha = 6 kg/plot. Factor II: Application of NPK fertilizer consisting of 3 treatment levels, namely:  $N_0 = 0$  kg/ha (control),  $N_1 = 100$  kg/ha = 10 gr/plot and  $N_2 = 200$  kg/ha = 20 gr/plot. Parameters observed were plant height, cob length, cob diameter, cob weight per plant, cob production per plot and cob production per hectare.

The results showed that the application of goat manure significantly increased plant height and corncob production, but had no significant effect on cob length, cob diameter and cob weight per plant. The application of NPK fertilizer significantly increased plant height, cob length, cob weight per plant and cob production but had no significant effect on corn cob diameter. The interaction of goat manure and NPK fertilizer had no significant effect on all observed parameters.

*Keywords: Sweet Corn Plants, Goat Manure, NPK Fertilizer*