

RINGKASAN

Penelitian ini dilaksanakan di lahan Percobaan Fakultas Pertanian Universitas Islam Sumatera Utara, Jln. Karya Wisata, Kecamatan Medan Johor, Kota Medan, Provinsi Sumatera Utara Ketinggian tempat ± 25 mdpl, dengan Topografi datar dengan jenis tanah ordo inceptisol. Penelitian ini dimulai pada Bulan Februari 2023 sampai dengan April 2023.

Penelitian ini dibimbing oleh Ibu Rahmi Dwi Handayani Rambe, S.P., M.P. sebagai ketua pembimbing dan Ibu Ir. Mindalisma, M.M. selaku Anggota Komisi Pembimbing. Penelitian ini bertujuan Untuk mengetahui pengaruh pemberian pupuk kandang kambing terhadap pertumbuhan dan produksi tanaman kacang tanah. Untuk mengetahui pengaruh pemberian POC sayuran terhadap pertumbuhan dan produksi tanaman kacang tanah. Untuk mengetahui pengaruh interaksi pemberian pupuk kandang kambing dan POC sayuran terhadap pertumbuhan dan peningkatan produksi tanaman kacang tanah. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) Faktorial yang terdiri dari 2 faktor perlakuan yaitu : pupuk organik cair sayuran dan pupuk kandang kambing. Faktor pertama yaitu pemberian pupuk kandnag kambing yang terdiri dari 4 taraf, yaitu : K_0 = kontrol, K_1 = 5 Ton/ha (0,72 kg/plot), K_2 = 10 Ton/ha (1,44 kg/plot), K_3 = 15 Ton/ha (2,16 kg/plot). Faktor kedua yaitu pemberian pupuk organik cair (POC) sayuran yang terdiri dari 3 taraf, (P), yaitu P_0 = Kontrol, P_1 = 40 ml/1 Liter air/Plot, P_2 = 60 ml/Liter air/Plot. Parameter yang diamati adalah tinggi tanaman (cm), jumlah cabang (cabang), bobot polong per tanaman sampel (gr), bobot polong per plot (gr), bobot 100 per butir per biji (gr).

Hasil penelitian menunjukkan bahwa pemberian pupuk kandang kambing berpengaruh nyata terhadap pertumbuhan dan produksi tanaman kacang tanah pada semua variabel pengamatan yaitu tinggi tanaman, jumlah cabang, bobot polong pertanaman sampel, bobot polong perplot dan bobot 100 butir per biji dan perlakuan terbaik terdapat pada perlakuan K_3 (pupuk kandang kambing 15 ton/ha 2,16 kg/plot). Pemberian Pupuk Organik Cair (POC) sayuran berpengaruh nyata terhadap pertumbuhan dan produksi tanaman kacang tanah pada semua variabel pengamatan yaitu tinggi tanaman, jumlah cabang, bobot polong per tanaman sampel, bobot polong per plot, dan bobot 100 butir per biji dan perlakuan terbaik terdapat pada perlakuan P_2 (60 ml/1 liter air/plot). Kombinasi antara kedua perlakuan pupuk kandang kambing dan Pupuk Organik Cair (POC) sayuran berpengaruh nyata terhadap bobot polong per tanaman sampel tanaman kacang tanah, tetapi tidak berpengaruh nyata terhadap variabel pengamatan tinggi tanaman, jumlah cabang, bobot polong per plot dan bobot 100 butir per biji.

Kata Kunci : Pupuk Kandang Kambing, Pupuk Organi Cair (POC) Sayuran
Pertumbuhan dan Produksi Tanaman Kacang Tanah.

SUMMARY

This research was conducted at the Experimental Field of the Faculty of Agriculture, Islamic University of North Sumatra, Jln. Field Trip, Medan Johor District, Medan City, North Sumatra Province Altitude \pm 25 meters above sea level, with flat topography with soil types of the Inceptisol order. This research starts in February 2023 until April 2023.

This research was supervised by Mrs. Rahmi Dwi Handayani Rambe, S.P., M.P. as the head advisor and Mrs. Ir. Mindalisma, M.M. as a member of the Advisory Commission. This study aims to determine the effect of goat manure on the growth and production of peanut plants. To determine the effect of giving vegetable POC on the growth and production of peanut plants. To determine the interaction effect of goat manure and vegetable POC on the growth and increase in peanut production. This study used a factorial randomized block design (RBD) consisting of 2 treatment factors, namely: organic liquid vegetable fertilizer and goat manure. The first factor is the application of goat manure which consists of 4 levels, namely: K0 = control, K1 = 5 tons/ha (0.72 kg/plot), K2 = 10 tons/ha (1.44 kg/plot), K3 = 15 tonnes/ha (2.16 kg/plot). The second factor was the provision of liquid organic fertilizer (POC) for vegetables which consisted of 3 levels, (P), namely P0 = Control, P1 = 40 ml/1 Liter of water/Plot, P2 = 60 ml/Liter of water/Plot. Parameters observed were plant height (cm), number of branches (branches), pod weight per sample plant (gr), pod weight per plot (gr), 100 seed weight (gr).

The results showed that the application of goat manure had a significant effect on the growth and production of peanut plants on all observational variables, namely plant height, number of branches, sample planting pod weight, pod weight per plot and 100 seed weight and the best treatment was K3 (fertilizer goat pen 15 tonnes/ha 2.16 kg/plot). The administration of liquid organic fertilizer (POC) for vegetables had a significant effect on the growth and production of peanut plants in all observational variables, namely plant height, number of branches, pod weight per sample plant, pod weight per plot, and 100 seed grain weight and the best treatment was in the P2 (60 ml/1 liter of water/plot). The combination of the two treatments of goat manure and liquid organic fertilizer (POC) of vegetables had a significant effect on the pod weight per plant of the peanut sample plant, but had no significant effect on the observational variables of plant height, number of branches, pod weight per plot and 100 seed weights.

Keywords : Goat Manure, Liquid Organic Fertilizer (POC) for Vegetables Growth and Production of Peanut Plants.