RINGKASAN

Jagung manis *(Zea mays Saccharata Sturt L.)* termasuk famili graminae sub famili panacoidae. Jagung manis termasuk tanaman monokotiledonus.Pupuk organik cair kebanyakan diaplikasikan melalui daun yang mengandung hara makro dan mikro esensial.Salah satu jenis pupuk organik cair yang dapat dimanfaatkan adalah urin kelinci.Urin kelinci dikenal sebagai sumber pupuk organik yang potensial untuk tanaman hortikultura.Urin kelinci memiliki kandungan unsur Nitrogen (N), Phosfor (P), Kalium (K) yang lebih tinggi (2.72%, 1.1%, dan 0,5%).Pupuk urea adalah pupuk kimia yang mengandung unsur nitrogen dengan berbentuk butir-butir kristal berwarna putih, memiliki rumus kimia NH2CONH2. Pupuk urea mudah larut dalam air dan sifatnya mudah menghisap air.

Penelitian ini dilaksanakan di Kebun Peercobaan Fakultas Pertanian Universitas Islam Sumatera Utara, Kelurahan Gedung Johor, Kecamatan Medan Johor, Kota Medan, Provinsi Sumatera Utara dengan ketinggian tempat ± 25 mdpl dan topografi datar. Penelitian ini dilaksanakan pada bulan Oktober sampai dengan bulan Januari 2022. Penelitian ini dibimbing oleh Ibu Rahmi Dwi Handayani Rambe, SP. MP. sebagai ketua pembimbing dan Ibu Ir. Mindalisma, MM. sebagai anggota pembimbing. Penelitian ini bertujuan untuk menguji pemberian POC urinkelinci dan pupuk urea terhadap pertumbuhan dan produksi tanaman jagung manis.

Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) faktorial dengan dua faktor perlakuan yaitu POC urin kelinci dan pupuk urea. Faktor pertama yaitu POC Urin Kelinci terdiri dari 4 taraf yaitu : K_0 = kontrol, K_1 = 40 ml/tanaman, K_2 = 80 ml/tanaman, dan K_3 = 120 ml/tanaman. Faktor kedua adalah Pupuk Urea yang terdiri dari 4 taraf yaitu : U_0 = kontrol, U_1 = 2,5 gr/tanaman, U_2 = 5 gr/tanaman, dan U_3 = 7,5 gr/tanaman. Parameter yang diamati adalah tinggi tanaman, helaian daun, diameter batang, berat tongkol klobot, berat tongkol tanpa klobot dan diameter tongkol.

Hasil penelitian ini menunjukan bahwa pemberian POC urin kelinci dan pupuk urea berpengaruh meningkatkan pertumbuhan tinggi tanaman, helaian daun dan diameter batang serta meningkatkan produksi tanaman jagung manis. Interaksi pemberian POC urinkelinci dan pupuk urea berpengaruh nyata terhadap pengamatan pertumbuhan tetapi tidak berpengaruh nyata terhadap pengamatan produksi tanaman jagung manis.

Kata Kunci :Jagung Manis, POC Urin Kelinci, Pupuk Urea,Nitrogen, Pertumbuhan dan Produksi.

SUMMARY

Sweet corn *(Zea mays Saccharata Sturt L.)* belongs to the Graminae family, sub family Panacoidae. Sweet corn is a monocotyledonous plant. Liquid organic fertilizers are mostly applied through the leaves which contain essential macro and micro nutrients. One type of liquid organic fertilizer that can be used is rabbit urin. Rabbits produce urin that contains very high nitrogen, because rabbits consume more forage plants, rabbit urin contains elements of Nitrogen (N), Phosphorus (P), Potassium (K) higher (2.72%, 1.1%, and 0 ,5%). Urea fertilizer is a chemical fertilizer containing nitrogen in the form of white crystalline grains, having the chemical formula NH2CONH2. Urea fertilizer is easily soluble in water and is easy to absorb water.

This research was conducted at the Experimental Garden of the Faculty of Agriculture, Islamic University of North Sumatra, Gedung Johor Village, Medan Johor District, Medan City, North Sumatra Province with an altitude of ± 25 meters above sea level and flat topography. This research was conducted from October to January 2021. This research was supervised by Mrs. Rahmi Dwi Hndayani Rambe, SP. MP. as chairman of the supervisor and Mrs. Ir. Mindalism, MM. as a member of the advisor. This study aims to test the administration of Rabbit Urin POC and Urea Fertilizer on the growth and production of sweet corn plants.

This study used a factorial Randomized Block Design (RBD) with two treatment factors, namely POC Rabbit Urin and Urea Fertilizer. The first factor is Rabbit Urin POC consisting of 4 levels, namely: K_0 = control, K_1 = 40 ml/plant, K_2 = 80 ml/plant, and K_3 = 120 ml/plant. The second factor was Urea Fertilizer which consisted of 4 levels, namely: U_0 = control, U_1 = 2.5 gr/plant, U_2 = 5 gr/plant, and U_3 = 7.5 gr/plant. Parameters observed were plant height, leaf blade, stem diameter, cob weight, cob weight without cob and ear diameter.

The results of this study showed that giving POC Rabbit Urin and Fertilizer Urea had an effect on increasing the growth of plant height, leaf blade and stem diameter as well as increasing the production of sweet corn plants. The interaction of giving Rabbit Urin POC and Urea Fertilizer had a significant effect on the observed growth but did not significantly affect the observation of sweet corn plant production.

Keywords: Sweet Corn, Rabbit Urin POC, Urea Fertilizer,Nitrogen, Growth and Production.