RINGKASAN

Padi merupakan tanaman yang sangat penting keberadaannya, karena beras yang dihasilkan merupakan sumber makanan pokok dan bahkan bagi separuh penduduk Asia. Sekitar 1.750 juta jiwa, dari 3 miliar penduduk Asia termasuk 200 juta penduduk Indonesia, sangat menggantungkan kebutuhan kalorinya dari beras. Sementara 100 juta dari 1,2 milyar penduduk Afrika dan Amerika latin hidup dengan mengkonsumsi beras. Penelitian ini bertujuan untuk mengetahui pengaruh dosis pupuk organik cair(POC) plus terhadap pertumbuhan dan produksi tanaman padi di lahan sawah. Mengetahui pengaruh sistem tanam legowo terhadap pertumbuhan dan produksi tanaman padi di lahan sawah. Mengetahui interaksi antara dosis pupuk organik cair (POC) plus dengan sistem tanam legowo terhadap pertumbuhan dan produksi tanaman padi di lahan sawah.

Penelitian ini dibimbing oleh bapak Dr. Ir. Diapari Siregar, M.P. selaku Ketua Komisi Pembimbing, Bapak Dr. Ir. H. Rahmad Setia Budi, M.Sc. selaku Anggota komisi Pembimbing. Penelitian ini akan dilaksanakan di lahan Sawah, Desa Delitua Pamah, Kecamatan Delitua, Kabupaten Deli Serdang, Provinsi Sumatera Utara Ketinggian tempat ±25 meter diatas permukaan laut (mpl), dengan topografi datar dengan jenis tanah Ordo Inceptisol. Penelitian ini dimulai pada Bulan November 2022 sampai dengan Bulan Februari 2023. Penelitian menggunakan Rancang Acak Kelompok (RAK) faktorial yang terdiri dari 2 faktor yaitu: faktor pertama dosis pupuk organik cair (POC) (P) yang terdiri: P_0 = kontrol (tanpa pupuk organik cair), P_1 = 180 ml POC, P_2 = 360 ml POC. Faktor kedua yaitu sistem tanam legowo (S) yang terdiri atas 3 perlakuan: S1 = Legowo 2:1, S2 = Legowo 3:1, S3 = Legowo 4:1. Parameter yang diamati yaitu: tinggi tanaman, jumlah anakan, skala warna daun, jumlah malai, bobot gabah hampa, bobot gabah berisi dan bobot gabah total.

Hasil penelitian menunjukkan bahwa dosis pupuk organik cair (POC) plus berpengaruh terhadap tinggi tanaman, jumlah anakan, skala warna daun, jumlah malai, bobot gabah berisi dan bobot gabah total, tetapi tidak berpengaruh terhadap parameter bobot gabah hampa. Sistem tanam jajar legowo berpengaruh terhadap tinggi tanaman, jumlah anakan, jumlah malai dan bobot gabah total, tetapi tidak berpengaruh terhadap parameter skala warna daun, bobot gabah hampa dan bobot gabah berisi. Interaksi dari kedua perlakuan dosis pupuk organik cair (POC) plus dan sistem tanam jajar legowo tidak berpengaruh terhadap semua parameter yang diamati.

Kata Kunci : Pupuk Organik Cair, Sistem Tanam, Tanaman Padi.

SUMMARY

Rice is a very important crop, because the rice produced is a staple food source for half of Asia's population. Around 1,750 million people, out of Asia's 3 billion population, including Indonesia's 200 million population, depend heavily on rice for their calorie needs. Meanwhile, 100 million of the 1.2 billion people in Africa and Latin America live by consuming rice. This research aims to determine the effect of the dose of liquid organic fertilizer plus on the growth and production of rice plants in paddy fields. Determine the effect of the legowo planting system on the growth and production of rice plants in paddy fields. Determine the interaction between the dose of liquid organic fertilizer plus the Legowo planting system on the growth and production of rice plants in paddy fields.

This research was supervised by Dr. Ir. Diapari Siregar, M.P. as Chairman of the Advisory Commission, Mr. Dr. Ir. H. Rahmad Setia Budi, M.Sc. as Member of the Advisory Commission. This research will be carried out in Sawah land, Village Delitua Pamah, Subdistrict Delitua, Regency Deli Serdang North Sumatra Province The altitude is ±25 meters above sea level, with flat topography with soil type of the Inceptisol order. This research began in November 2022 until February 2023. The research used a factorial Randomized Block Design (RBK) which consisted of 2 factors, namely: the first factor was the dose of liquid organic fertilizer (P) which consisted of: P_0 = control (without fertilizer liquid organic), P_1 = 180 ml POC, P_2 = 360 ml POC. The second factor is the Legowo planting system (S) which consists of 3 treatments: S_1 = Legowo 2:1, S_2 = Legowo 3:1, S_3 = Legowo 4:1. The parameters observed were: plant height, number of tillers, leaf color scale, number of panicles, empty grain weight, filled grain weight and total grain weight.

The research results showed that the dose of liquid organic fertilizer plus had an effect on plant height, number of tillers, leaf color scale, number of panicles, weight of filled grain and total weight of grain, but had no effect on empty grain weight parameters. The row legowo planting system had an effect on plant height, number of tillers, number of panicles and total grain weight, but had no effect on leaf color scale parameters, empty grain weight and filled grain weight. The interaction of the two treatments with liquid organic fertilizer plus doses and the Jajar Legowo planting system had no effect on all observed parameters.

Keywords : Liquid Organic Fertilizer, Planting System, Rice Plants.