RINGKASAN

Penelitian ini dilaksanakan di Kebun Percobaan 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 dilaksanakan pada bulan Mei 2021 sampai dengan bulan September 2021. Dibimbing oleh Bapak Ir. Mahyuddin Dalimunthe, MP sebagai Ketua Pembimbing dan Bapak Ir. S. Edy Sumantri. MP sebagai Anggota Pembimbing.

Tujuan penelitian untuk mengetahui pengaruh ketahanan beberapa varietas kedelai (*Glycine max*) dan pemupukan nitrogen terhadap penyakit karat daun kedelai (*P. pachyirhizi*). Penelitian ini mengunakan Rancangan Acak Kelompok (RAK) faktorial dengan dua faktor perlakuan yaitu varietas tanaman kedelai dan pupuk Nitrogen. Faktor pertama yaitu: jenis varietas terdiri dari 4 taraf yaitu : V_1 (Anjasmoro), V_2 (Grobogan), V_3 (Dega 1), dan V_4 (Dering 1). Faktor kedua yaitu: pupuk Nitrogen terdiri dari 3 taraf yaitu : N_1 (4,4 g/plot), N_2 (14,4 g/plot), dan N_3 (24,4 g/plot). Parameter yang diamati adalah intensitas penyakit karat daun, persentase tanaman terserang, produksi per plot dan bobot biji 100 butir.

Hasil penelitian menunjukkan bahwa Jenis varietas berpengaruh nyata terhadap intensitas penyakit karat daun, persentase tanaman terserang, produksi per plot dan bobot biji 100 butir. Pemberian pupuk N berpengaruh nyata terhadap intensitas penyakit, persentase tanaman terserang, produksi per plot tetapi tidak berpengaruh terhadap bobot biji 100 butir. Interaksi antara jenis varietas dan pemupukan N berpengaruh nyata terhadap intensitas penyakit karat daun, tetapi tidak berpengaruh terhadap persentase tanaman terserang, produksi per plot dan bobot biji 100 butir.

Kata Kunci : Tanaman Kedelai, Varietas, Pupuk Nitrogen, Karat Daun

SUMMARY

This research was conducted at the Experimental Garden of the Faculty of Agriculture, Islamic University of North Sumatra, Gedung Johor, Medan Johor, Medan, North Sumatra Province with an altitude of ± 25 meters above sea level and flat topography. The research was carried out from May 2021 to September 2021. Supervised by Mr. Ir. Mahyuddin Dalimunthe, MP as the Chief Advisor and Mr. Ir. S. Edy Sumantri. MP as a Advisory Member.

The aim of the study was to determine the effect of resistance of several soybean varieties (Glycine max) and nitrogen fertilization on soybean leaf rust (P. pachyirhizi). This study used a factorial Randomized Block Design (RBD) with two factors, namely soybean varieties and Nitrogen fertilizers. The first factor was: the type of variety consisted of 4 levels, namely: V1 (Anjasmoro), V2 (Grobogan), V3 (Dega 1), and V4 (Dering 1). The second factor is: fertilizer N consists of 3 levels, namely: N1 (4.4 g/plot), N2 (14.4 g/plot), and N3 (24.4 g/plot). Parameters observed were intensity of leaf rust disease, percentage of affected plants, production per plot and seed weight of 100 grains

The results showed that the type of variety significantly affected the intensity of leaf rust disease, the percentage of affected plants, production per plot and seed weight of 100 grains. The application of Nitrogen fertilizer significantly affected disease intensity, percentage of affected plants, production per plot but had no effect on seed weight of 100 grains. The interaction between varieties and Nitrogen fertilization had a significant effect on the intensity of leaf rust disease, but did not affect the percentage of affected plants, production per plot and seed weight of 100 grains.

Keywords: Soybean Plants, Varieties, Nitrogen Fertilizer, Leaf Rust