

Nur Fatimah Candha Sari 180311100147. Pengaruh Perbedaan Kadar Air Tanah Terhadap Serapan N, Pertumbuhan Serta Hasil Tanaman Jagung (*Zea mays*) Varietas Bisi-2 dan Tambin di Tanah Alfisol. Pembimbing **Dr. Ir. Eko Murniyanto, MP**

ABSTRAK

Air salah satu faktor penting untuk mendukung pertumbuhan dan hasil tanaman jagung. Tingkat penggunaan air pada jagung berkisar antara 400-500 mm. Nitrogen merupakan unsur hara yang dibutuhkan dalam jumlah banyak guna pertumbuhan tanaman. Tujuan penelitian ini untuk mengetahui pengaruh tingkat pemberian air terhadap serapan N, pertumbuhan dan hasil tanaman jagung Bisi-2 dan Tambin dilaksanakan di ScreenHouse Prodi Agroekoteknologi Universitas Trunojoyo Madura pada bulan November 2021 sampai April 2022. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) , dengan taraf 3 perlakuan yaitu tingkat pemberian air 60%, 80% dan 100% Kapasitas Lapang (KL) penelitian dilaksanakan pada 2 jenis jagung yaitu varietas hibrida Bisi-2 (H) dan varietas lokal Tambin (L) dan diulang 4 kali untuk tiap perlakuan. Hasil penelitian ini menunjukkan tanaman jagung hibrida Bisi-2 perlakuan tingkat pemberian air tanah 100% memberikan hasil yang tertinggi pada N-total tanah, pH tanah, luas daun, berat kering tanaman, bobot biji pertanaman dan yang berpengaruh nyata pada parameter tinggi tanaman umur 21-49 HST, kandungan klorofil dan kadar protein. Sedangkan Jagung lokal Tambin berpengaruh nyata pada parameter N-total tanah, serapan N, kandungan klorofil, kadar protein dan bobot kering tanaman. hasil terbaik rata-rata pada perlakuan tingkat pemberian air 60% dan memberikan hasil tertinggi pada parameter N-jaringan tanaman, tinggi tanaman dan luas daun.

Kata kunci : Tingkat pemberian air, Nitrogen, jagung

Nur Fatimah Candha Sari 180311100147. Effect of Differences in Soil Water Content on N Uptake, Growth and Yield of Corn (*Zea mays*) Bisi-2 and Tambin varieties in Alfisol. Advisor **Dr. Ir. Eko Murnyanto, MP**

ABSTRACT

Water is one of the important factors to support the growth and yield of corn plants. The level of water use in corn ranges from 400-500 mm. Nitrogen is a nutrient needed in large quantities for plant growth. The purpose of this study was to determine the effect of the level of water supply on N uptake, growth and yield of Bisi-2 and Tambin corn plants carried out at the ScreenHouse of Agroecotechnology Study Program, Trunojoyo University, Madura from November 2021 to April 2022. This study used a Randomized Block Design, with level 3 treatments, namely the level of water supply 60%, 80% and 100% Field Capacity. The research was carried out on 2 types of corn, namely the Bisi-2 hybrid variety (H) and the local variety Tambin (L) and repeated 4 times for each treatment. The results of this study showed that Bisi-2 hybrid corn plants treated with 100% groundwater application gave the highest yield on total soil N, soil pH, leaf area, plant dry weight, plant seed weight and which significantly affected plant height parameters 21- 49 days after planting, chlorophyll content and protein content. Meanwhile, local maize Tambin significantly affected the soil N-total parameters, N uptake, chlorophyll content, protein content and plant dry weight. The best results on average were treated at 60% water level and gave the highest yields on the parameters of N-plant tissue, plant height and leaf area.

Key words : water supply rate, nitrogen, corn