

INTISARI

Penelitian ini bertujuan untuk mengetahui ketahanan bawang merah yang telah diaplikasikan dengan mikoriza pada berbagai kondisi kekeringan terhadap pertumbuhan dan hasil tanaman. Penelitian di Green house dan analisis di Laboratorium Agrobioteknologi dan Penelitian Fakultas Pertanian, Universitas Muhammadiyah Yogyakarta pada bulan Februari-Mei 2018. Penelitian ini menggunakan metode eksperimen faktor tunggal yang disusun menggunakan Rancangan Acak Lengkap (RAL). Perlakuan yang diujikan adalah volume air untuk mencapai kondisi kadar lengas kapasitas lapang tanah yang terdiri atas 4 tingkatan yaitu A = Volume air 100% Kapasitas Lapang; B = Volume air kadar lengas 70% kapasitas lapang ; C = Volume air kadar lengas 50% kapasitas lapang; dan D = Volume air kadar lengas 30% kapasitas lapang. Setiap perlakuan ditambahkan inokulum Cendawan Mikoriza Arbuskula dengan dosis 40 gram/tanaman, perlakuan diulang sebanyak 3 kali, dengan masing-masing ulangan terdapat 1 tanaman sampel dan 2 tanaman korban sehingga terdapat 36 unti percobaan. Hasil penelitian tanaman bawang merah yang diinokulasi dengan mikoriza dapat bertahan hidup sampai volume air sebanyak 50% dari penambahan air untuk mencukupi kapasitas lapang. Semakin banyak penambahan air tanah maka semakin baik pertumbuhan dan hasil tanaman bawang merah. Volume air sebanyak 70%, 50% dan 30% dari penambahan air untuk mencukupi kapasitas lapang menghasilkan pertumbuhan dan umbi yang lebih rendah dibandingkan 100% kapasitas lapang.

Kata Kunci : Bawang Merah, Mikoriza, Volume Penambahan Air.

ABSTRACT

This study aims to determine the resistance of red onions that have been applied with mycorrhizae in various drought conditions on plant growth and yield. Research in Green house and analysis at the Laboratory of Agrobiotechnology and Research, Faculty of Agriculture, University of Muhammadiyah Yogyakarta in February-May 2018. This study uses a single factor experimental method that is prepared using a Completely Randomized Design (CRD). The treatment tested is the volume of water to achieve the moisture content of the field field capacity consisting of 4 levels, namely A = Water volume 100% Field Capacity; B = volume of moisture content 70% field capacity; C = Water volume of moisture content 50% field capacity; and D = Water volume of moisture content 30% field capacity. Each treatment was added with an Arbuscular Mycorrhizal Fungi inoculum at a dose of 40 grams / plant, the treatment was repeated 3 times, with each replication there was 1 sample plant and 2 sacrificial plants so that there were 36 experimental plants. The results of research on red onion inoculated with mycorrhizae can survive up to 50% of the volume of water from the addition of water to meet the field capacity. The more addition of ground water, the better the growth and yield of shallots. Water volume is 70%, 50% and 30% of the addition of water to meet the field capacity to produce growth and lower bulbs compared to 100% field capacity.

Keywords : Mycorrhizal, Red onion, Water volume of moisture content.