INTISARI

DISTRIBUSI ASIMILAT TUJUH KULTIVAR TOMAT (*Solanum lycopersicum*. L) DATARAN RENDAH AKIBAT KEKERINGAN

Keterbatasan lahan pertanian di dataran tinggi, mengakibatkan para petani tomat mengalihkan pertanaman tomat ke dataran rendah. Akibat hal tersebut, para pemulia tanaman merakit kultivar tomat dataran rendah. Iklim yang tidak menentu mengakibatkan terjadinya kekeringan. Tanaman akan menunjukkan penyaluran asimilat yang berbeda ketika mengalami cekaman kekeringan. Penelitian ini bertujuan untuk melihat tanggapan distribusi asimilat kultivar tomat dataran rendah terhadap cekaman kekeringan dan mancari kultivar tomat tahan kekeringan. Penelitian dilakukan di Kebun Percobaan, Fakultas Pertanian, Universitas Gadjah Mada, Banguntapan, Bantul, Yogyakarta pada bulan November 2012 – Januari 2013. Penelitian ini menggunakan polibag sebagai media tanam yang disusun dalam rancangan petak belah (*split plot*) dengan petak utama berupa perlakuan cekaman kekeringan dan anak petak berupa kultivar tomat dataran rendah dengan 3 ulangan. Perlakuan cekaman kekeringan terdiri dari 4 tingkat yaitu selang waktu penyiraman 1, 2, 4, dan 8 hari sekali. Perlakuan kultivar terdiri dari 7 macam yaitu Zamrud, Permata, Mirah, Tombatu, Tyrana, Ratna, dan Tymoty. Hasil penelitian menunjukkan bahwa peningkatan selang waktu penyiraman menyebabkan pertumbuhan dan hasil tanaman menurun. Analisis cluster menunjukkan bahwa terdapat dua kelompok kultivar. Berdasarkan bobot buah total per tanaman kelompok kultivar pertama yaitu, Zamrud, Permata, dan Ratna termasuk kedalam golongan kultivar tomat tahan kekeringan. Penurunan bobot buah total ketiga varietas tersebut mencapai 10.16%, 22.06%, dan 41.26%. Kultivar Tombatu, Tyrana, Tymoti, dan Mirah termasuk kedalam golongan kultivar tidak tahan kekeringan dengan penurunan bobot buah total per tanaman mencapai 64,99%, 66,02%, 71,81%, dan 82,36%.

Kata kunci: ***Kekeringan, penyiraman, tomat***

ABSTRACT

ASSIMILATES DISTRIBUTION OF SEVEN VARIETIES OF TOMATO (*Solanum lycopersicum*. L) *IN DROUGHT*

Limited land for agriculture in high altitude causes farmers of tomato switch their crop to low altitude. Due to this, plant breeder assembled low altitude cultivars of tomato. Climate change results drought stress. Plant may show different distribution assimilates under the drought stress. This study aimed to determine the responses of distribution assimilates of the low altitude cultivars of tomato under drought stress and determine for the tolerant cultivars of tomato under drought stress. The research conducted at the Experimental Station, Faculty of Agriculture, Gadjah Mada University, Banguntapan, Bantul , Yogyakarta from November 2012 to January 2013. The experiments used split plot design with two treatments, drought stress as the main plot and low altitude cultivars of tomato as subplot. The design consisted of three replications. Drought stress treatment consisted of 4 levels, that is 1, 2, 4, and 8 days of watering interval. Cultivars treatment consisted of 7 different cultivars. The cultivars are Zamrud , Permata, Mirah, Tombatu, Tyrana, Ratna, and Tymoty. The results showed that the increasing of interval watering causes decreased growth and yield. The analysis of cluster resulted two group of cultivars. The one of the group consisted of Zamrud, Permata, and Ratna and the other group consisted of Mirah, Tyrana, Tombatu, and Tymoti. Based of tottaly fruits weight, Zamrud, Permata, and Ratna included into the group of tolerant cultivars under drought stress. The totally fruits weight of the three cultivars decreased as following 10.16%, 22.06%, and 41.26%. Mirah, Tyrana, Tombatu, and Tymoty included into the group of untolerant cultivars under drought stress with decreased of totally fruits weight as following 64.99%, 66.02%, 71.81%, and 82.36%.

Keywords : drought, tomato, watering