

ABSTRAK

PENGARUH KETERSEDIAAN AIR TERHADAP PERTUMBUHAN DAN PRODUKSI TANAMAN CIPLUKAN (*Physalis angulata* L.)

Di bawah bimbingan Zauzah Abdullatif dan Sugeng Haryanto

ABSTRAK

Tumbuhan ciplukan (*Physalis angulata* L.) adalah tanaman yang umumnya tumbuh liar, biasa didapati bercampur dengan tumbuhan herba dan semak lainnya di kebun, tegalan, sawah yang mengering, tepi jalan, tepi hutan dan bagian-bagian hutan yang terbuka disinari terik matahari. Saat ini Ciplukan belum dibudidayakan di Kota Ternate, Maluku Utara.

Penelitian ini bertujuan untuk mengetahui bagaimana pengaruh ketersediaan air selama pertumbuhan sampai produksi pada tanaman ciplukan. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan perlakuan ketersediaan air yang terdiri dari 4 perlakuan dan 4 ulangan, sehingga diperoleh 16 unit percobaan (Polybag) dengan perlakuan: K₁ = 100 % Kapasitas lapang (3 liter / Polybag) K₂ = 75 % Kapasitas lapang (2,25 Liter / Polybag). K₃ = 50 % Kapasitas lapang (1,5 Liter / Polybag). K₄ = 25 % Kapasitas lapang (0,75 Liter / Polybag).

Hasil penelitian menunjukkan ketersediaan air yang terbaik adalah 2,25 Liter air memberikan produksi tanaman ciplukan yang menghasilkan tinggi tanaman 87,3 cm, jumlah cabang primer 8,05, luas daun 18,81cm, jumlah bunga 201,63, jumlah buah panen 94,12, diameter buah 3,2 cm dan berat buah 105,07 g

Kata Kunci : Kapasitas Lapang, Ketersediaan air, Ciplukan (*Physalis angulata* L.)

ABSTRACT

THE EFFECTS OF WATER AVAILABILITY ON THE GROWTH AND YIELD OF GROUNDCHERRY (*Physalis angulata* L.)

Under the supervisory panel of Zauzah Abdullatif and Sugeng Haryanto

The Groundcherry (*Physalis angulata* L.) is classified as a wild plant. This plant is commonly found among other herbaceous plants and shrubs in gardens, moors, dry rice field, roadsides, and parts of forests exposed to sunlight. To date, the plant has not yet been cultivated in Ternate, North Maluku.

The aim of the present study is to examine the effects of water availability on the growth and yield of groundcherry. An experiment was set up in a pot trial using a Completely Randomized Design (CRD). The treatments consist of four levels of water availability, $K_1 = 100\%$ of field capacity (3 litres / pot); $K_2 = 75\%$ of field capacity (2.25 litres / pot); $K_3 = 50\%$ of field capacity (1.5 litres / pot); and $K_4 = 25\%$ of field capacity (0.75 litres / pot).

The results revealed that the highest growth and yield of Groundcherry was found on the treatment of 2.25 litres of water availability or 75% of field capacity. The performance of plant growth and yield on the treatment was indicated by having the average of plant height of 87.3cm, with a total number of 8.05 primary stems, leaf length of 18.81cm, 201.63 flowers, 94.12 harvested fruits, 3.2 cm of fruit diameter, and 105.07 g of fruit weight.

Keywords: Field Capacity, Water Availability, Groundcherry (*Physalis angulata* L.)