

ABSTRAK

Sopiyani Sopyan, 2024. Evaluasi Nilai EC pada Fase Vegetatif dan Generatif Terhadap Pertumbuhan dan Hasil Tanaman Brokoli (*Brassica oleracea* var. *Italica*). Dibawah bimbingan Budy Frasetya Taufik Qurrohman dan Irfan Muhammad.

Proses budidaya tanaman brokoli di Indonesia masih dilakukan secara konvensional. Namun, karena terjadinya alih fungsi lahan pertanian maka proses budidaya tanaman brokoli dapat dilakukan secara hidroponik. Hidroponik irigasi tetes menjadi salah satu metode untuk mengatasi permasalahan tersebut. Pada budidaya hidroponik salah satu komponen penting yang perlu diperhatikan adalah nilai *Electrical conductivity* (EC). Penelitian ini bertujuan untuk mengetahui pengaruh dan nilai EC terbaik untuk fase vegetatif dan generatif terhadap pertumbuhan dan hasil tanaman brokoli. Penelitian ini dilakukan di P4S Kurnia Abadi, Desa Pasirlangu, Kecamatan Cisarua, Kabupaten Bandung Barat. Penelitian dilakukan sejak bulan Januari-April 2024. Metode penelitian yaitu Rancangan Acak Lengkap (RAL) satu faktor yaitu taraf kepekatan nilai EC pada fase vegetatif dan generatif dengan 5 perlakuan dan diulang sebanyak 5 kali. Hasil penelitian ini menunjukkan bahwa pemberian nilai EC pada fase vegetatif 2,0 mS cm⁻¹ dan generatif 3,0 mS cm⁻¹ berpengaruh terhadap tinggi tanaman 21 HST dan 28 HST, jumlah daun, diameter krop, berat krop per tanamaan, berat segar brangkasan, berat kering brangkasan, dan indeks panen.

Kata kunci: Brokoli, EC, Generatif, Hidroponik, Vegetatif

ABSTRACT

Sopiyani Sopyan, 2024. Evaluation of EC Value in Vegetative and Generative Phase on Growth and Yield of Broccoli (*Brassica oleracea* var. *Italica*). Supervised by Budy Frasetya Taufik Qurrohman and Irfan Muhammad.

The process of cultivating broccoli plants in Indonesia is still done conventionally. However, due to the conversion of agricultural land, the process of cultivating broccoli plants can be done hydroponically. Drip irrigation hydroponics is one of the methods to overcome this problem. In hydroponic cultivation, one important component that needs to be considered is the value of Electrical conductivity (EC). This study aims to determine the effect and best EC value for vegetative and generative phases on the growth and yield of broccoli plants. This research was conducted at P4S Kurnia Abadi, Pasirlangu Village, Cisarua District, West Bandung Regency. The research was conducted from January to April 2024. The research method was a one-factor Completely Randomized Design (CRD), namely the concentration level of EC value in the vegetative and generative phases with 5 treatments and repeated 5 times. The results of this study showed that the provision of EC value in the vegetative phase of 2.0 mS cm^{-1} and generative 3.0 mS cm^{-1} had an effect on plant height 21 DAT and 28 DAT, number of leaves, crop diameter, crop weight per plant, fresh weight of stalk, dry weight of stalk, and harvest index.

Keywords: Broccoli, EC, Generative, Hydroponics, Vegetative

