ABSTRAK

Wina Juwita Febriani, 2024. Pengaruh Jenis Formulasi Nutrisi dan Giberelin (Ga_3) Terhadap Pertumbuhan dan Hasil Tanaman Mentimun Jepang (*Cucumis Sativus* L.) Pada Sistem Irigasi Tetes. Dibawah bimbingan Budy Frasetya Taufik Qurrohman dan Irfan Muhammad.

Produksi mentimun jepang di Indonesia mengalami fluktuasi setiap tahunnya, Budidaya tanaman secara hidroponik dapat menjadi solusi untuk meningkatkan produksi tanaman mentimun, terutama di daerah yang lahannya terbatas. Penggunaan zat pengatur tumbuh salah satunya giberelin berpotensi mempengaruhi karakteristik genetik tanaman serta proses fisiologis seperti pembungaan dan partenokarpi dalam kaitannya dengan upaya perbaikan sistem budidaya untuk meningkatkan produktivitas tanaman mentimun. Tujuan dari penelitian ini untuk mengetahui pengaruh jenis formulasi nutrisi dan giberelin terhadap pertumbuhan dan hasil tanaman mentimun jepang. Penelitian ini dilaksanakan di P4S Kurnia Abadi, Desa Pasirlangu, Kecamatan Cisarua, Kabupaten Bandung Barat. Penelitian dilakukan sejak bulan Februari - Mei 2024. Metode penelitian yaitu Rancangan Acak Lengkap (RAL) faktorial dengan faktor pertama yaitu formulasi nutrisi (f) terdiri dari 2 taraf perlakuan (Formulasi nutrisi Sutiyoso, 2006 dan *Ontario Ministry of Agriculture, Food and Rural Affairs, 2005*) dan faktor kedua yaitu dosis zpt geberelin (g) terdiri dari 5 taraf perlakuan (g1= 0 ppm, g2= 25 ppm, g3= 50 ppm, g4= 75 ppm, g5= 100 ppm) diperoleh 10 kombinasi perlakuan dengan 3 kali ulangan. Hasil penelitian ini menunjukan bahwa pemberian formulasi Sutiyoso tanpa giberelin dan formulasi Ontario dengan giberelin 25 ppm memberikan hasil terbaik untuk tanaman mentimun jepang pada sistem irigasi tetes.

Kata Kunci: Giberelin, Hidroponik, Mentimun Jepang, Nutrisi

ABSTRACT

Wina Juwita Febriani, 2024. Effect of Nutrient and Gibberellin (Ga3) Formulation Types on Growth and Yield of Japanese Cucumber (*Cucumis Sativus L.*) On the drip irrigation system. Supervised by Budy Frasetya Taufik Qurrohman and Irfan Muhammad.

Japanese cucumber production in Indonesia fluctuates every year. Hydroponic cultivation can be a solution to increase cucumber production, especially in areas where land is limited. The use of growth regulators, one of which is gibberellin, has the potential to influence plant genetic characteristics as well as physiological processes such as flowering and parthenocarpy in relation to efforts to improve cultivation systems to increase cucumber plant productivity. The aim of this research was to determine the effect of the type of nutritional formulation and gibberellin on the growth and yield of Japanese cucumber plants. This research was carried out at P4S Kurnia Abadi, Pasirlangu Village, Cisarua District, West Bandung Regency. The research was conducted from February - May 2024. The research method was a factorial Completely Randomized Design (CRD) with the first factor, namely nutritional formulation (f) consisting of 2 treatment levels (Nutritional formulation Sutiyoso, 2006 and Ontario Ministry of Agriculture, Food and Rural Affairs, 2005) and the second factor, namely the dose of zpt geberelin (g) consisting of 5 treatment levels (g1= 0 ppm, g2= 25 ppm, g3= 50 ppm, g4= 75 ppm, g5= 100 ppm) obtained 10 treatment combinations with 3 repetitions. The results of this study showed that the administration of Sutiyoso formulation without gibberellin and Ontario formulation with gibberellin 25 ppm gave the best results for Japanese cucumber plants in the drip irrigation system.

Keywords: Gibberellin, Hydroponics, Japanese Cucumber, Nutrition