

ABSTRAK

Alfi Muntafi Ilma. 2020. Pengaruh Ragam Formulasi Nutrisi Hidroponik Terhadap Pertumbuhan Dan Hasil Tiga Varietas Tanaman Buncis (*Phaseolus Vulgaris* L.) Pada Hidroponik Sistem Irigasi Tetes. Di bawah bimbingan Muhammad Subandi dan Budy Frasetya Taufik Qurrohman.

Produktivitas buncis mengalami penurunan dikarenakan keterbatasan lahan yang sesuai dengan lingkungan tanaman buncis. Salah satu cara untuk mengatasi permasalahan tersebut adalah budidaya secara hidroponik dan mengetahui formulasi nutrisi terbaik untuk budidaya secara hidroponik serta varietas buncis terbaik. Penelitian ini dilaksanakan pada bulan Maret sampai Mei 2020 di *screenhouse* Universitas Padjadjaran Kecamatan Jatinangor, Kabupaten Sumedang, Jawa Barat. Menggunakan Rancangan Acak Lengkap (RAL) dua faktor, faktor pertama adalah ragam formulasi nutrisi hidroponik (Formula Sutiyoso, Formula Aroca, Formula Chaoui, Formula Hoagland) dan faktor kedua adalah varietas buncis (Balitsa-1, Balitsa-2, Balitsa-3) sehingga terdapat 12 kombinasi perlakuan yang diulang sebanyak tiga kali dengan dua tanaman pada tiap satuan percobaan. Hasil penelitian menunjukkan terdapat interaksi antara ragam formulasi nutrisi dan varietas buncis terhadap pertumbuhan tanaman buncis pada parameter tinggi tanaman (14 HST) dan pengaruh mandiri pada parameter tinggi tanaman (7, 21, 28, 35 HST), luas daun, umur berbunga, jumlah bunga, nisbah pupus akar, bobot kering brankasan per tanaman, bobot segar polong per tanaman, dan grading. Penggunaan formula Sutiyoso dan varietas Balitsa-1 dapat meningkatkan produktivitas tanaman buncis.



Kata Kunci: Buncis, Formula Nutrisi, Hidroponik, Irigasi Tetes, Varietas.

ABSTRACT

Alfi Muntafi Ima. 2020. The Effect of Various Nutrient Hydroponic Formulation on Growth and Yield of Three Varieties of Common Bean (*Phaseolus vulgaris* L.) on Hydroponic Drip Irrigation System. Supervised by Muhammad Subandi and Budy Frasetya Taufik Qurrohman

Common bean productivity has a reduction due to land limitations that are suitable for the bean crop environment. One of way to resolve this problem is hydroponic cultivation and choose the best nutrients formulation with the best common bean varieties. The research was conducted in March to May 2020 at the Screenhouse of Padjadjaran University, Jatinangor District, Sumedang Regency, West Java. Using a completely randomized design (RAL) of two factors, the first factor is the variety of hydroponic nutritional formulations (Formula Sutyoso, Formula Aroca, Formula Chaoui, Formula Hoagland) and the second factor is the variety of common beans (Balitsa-1, Balitsa-2, Balitsa-3) thus there are 12 combinations were repeated three times with two plants in each experimental unit. The results showed the interaction between nutritional formulations and common bean varieties on the growth of common bean plants on plant height parameters (14 DAS) and independent tendencies on plant height parameters (7, 21, 28, 35 DAS), leaf area, flowering appear, number of flowers, ratio root loss, dry weight per plant, fresh weight of pods per plant, and grading. The use of Sutyoso's formula and Balitsa-1 variety can increase the productivity of common bean plants.

Keywords: Common Bean, Drip Irrigation, Hydroponic, Nutrient Formulation, Variety.