ABSTRAK

Hazmi Hildiani. 2021. Respon Tanaman Buncis Tegak (*Phaseolus vulgaris*) Varietas Kenya terhadap Konsentrasi *Plant Growth Promoting Rhizobacteria* dan Bohasi Kotoran Sapi. Dibawah bimbingan Suryaman Birnadi dan Esty Puri Utami.

Pupuk anorganik yang digunakan untuk meningkatkan produksi tanaman berdampak pada menurunnya tingkat kesuburan tanah pada lapisan top soil, untuk itu diperlukan penambahan bahan organik yang mampu mengurangi dampak tersebut. Salah satu bahan organik yang dapat digunakan yaitu *Plant Growth Promoting Rhizobacteria* (PGPR) dan bohasi kotoran sapi. Pemberian PGPR dan bohasi kotoran sapi diharapkan mampu mempengaruhi pertumbuhan dan hasil tanaman buncis tegak varietas kenya. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian konsentrasi PGPR dan bohasi kotoran sapi terhadap pertumbuhan dan hasil tanaman buncis tegak varietas kenya. Penelitian ini dilaksanakan pada bulan Maret sampai dengan Mei 2021 di Screen House Satuan Pelayanan Benih Kentang Desa Margamulya Kecamatan Pangalengan Kabupaten Bandung Provinsi Jawa Barat. Metode penelitian yang digunakan dalam penelitian ini yaitu Rancangan Acak Lengkap faktorial dua faktor. Faktor pertama adalah PGPR (0 ml L^{-1}, 5 ml L^{-1}, 10 ml L^{-1}, 15 ml L^{-1}) dan faktor kedua adalah Bohasi Kotoran Sapi (0 t ha^{-1}, 5 t ha^{-1}, 10 t ha^{-1}), sehingga terdapat 12 kombinasi taraf perlakuan yang diulang sebanyak tiga kali. Berdasarkan hasil penelitian tidak terdapat interaksi antara PGPR dan bohasi kotoran sapi terhadap pertumbuhan dan hasil tanaman buncis tegak varietas kenya. Konsentrasi PGPR 5 ml L^{-1} berpengaruh terhadap nisbah pupus akar tanaman serta dosis bohasi kotoran sapi 5 t ha^{-1} (25 g *polybag*$^{-1}$) berpengaruh terhadap parameter luas daun, bobot segar brangkas, jumlah polong pertanaman, bobot segar polong pertanaman, serta bobot kering brangkas pada tanaman buncis tegak varietas kenya.

Kata kunci : Bahan Organik, Bohasi Kotoran Sapi, Buncis Tegak, PGPR.

ABSTRACT

Hazmi Hildiani. 2021. Response of Baby Beans (*Phaseolus vulgaris*) Variety of Kenya to Plant Growth Promoting Rhizobacteria Concentrations and Bocation of Cow Manure. Under the guidance by Suryaman Birnadi and Esty Puri Utami.

Inorganic fertilizers used to increase crop production have an impact on the decrease in soil fertility rate in the top soil layer, therefore it was necessary to add organic matter that is able to reduce the impact. One of the organic materials that can be used was Plant Growth Promoting Rhizobacteria (PGPR) and bocation cow manure. The provision of PGPR and bocation cow manure was expected to affect the growth and yield of upright chickpeas kenyan varieties. This study aims to determine the concentration effect of PGPR and bocation cow manure to the growth and yield of baby beens plants of Kenya varieties. This research was conducted in March to May 2021 at the Screen House Potato Seed Service Unit Margamulya Village Pangalengan District, Bandung, West Java Province. The research method used a Complete Randomized Design of two factors. The first factor was PGPR (0 ml L^{-1}. 5 ml L^{-1}, 10 ml L^{-1}, 15 ml L^{-1}) and the second factor was Bocation Cow Manure (0 t ha^{-1}, 5 t ha^{-1}, 10 t ha^{-1}), so that there were 12 combinations of treatment levels repeated three times. Based on the results of the study there was no interaction between PGPR and bocation cow manure to the growth and yield of baby beans Kenya varieties. PGPR concentration of 5 ml L^{-1} affects the ratio of plant root loss as well as bocation dose of cow manure 5 t ha^{-1} (25 g $polybag^{-1}$) affects the parameters of leaf area, fresh weight of safe, number of crop pods, fresh weight of crop pods, as well as dry weight of safes in baby beans plants of Kenya varieties.

Keywords: Organic Material, Bocation Cow Manure, Baby Beans, PGPR.