

ABSTRACT

AFFANDY SAHALA TUA MARPAUNG. A. 1710957. Effects of Nitrogen Source Organic Fertilizer Application on the Growth and Production of Green Bean (*Phaseolus vulgaris* L.). Under immediate Supervision of Arifah Rahayu and Nur Rochman.

This study was aimed at assessing the effects of the application of different types of N source liquid organic fertilizers (LOF) on the growth and production of green beans (*Phaseolus vulgaris* L.). The study was conducted at the Trial Farm of Djuanda University, Bogor, West Java. A completely randomized design was used. Treatments consisted of 11 levels of fertilizer applications, namely no fertilizer, 100% R mexican sunflower, 100% R *kirinyuh* (*Chromolaena odorata*), 100% R cattle urine, 100% R urea, 75% R mexican sunflower + 25% R urea, 75% R *kirinyuh*+ 25% R urea, 75% R cattle urine + 25% R urea, 50% R mexican sunflower + 50% R urea, 50% R *kirinyuh* + 50% R urea, and 50% R cattle urine + 50% R urea. Results showed that compared to the use of 100% R urea, the application of N source LOF did not give any significant effects on all parameters measured. This indicated that N source LOF could be used as urea alternative in natural farming systems.

Key words : *green bean, mexican sunflower, kirinyuh, cattle urine*

ABSTRACT

Penelitian ini bertujuan untuk mempelajari pengaruh jenis pupuk organik sumber N terhadap pertumbuhan dan produksi tanaman buncis tegak (*Phaseolus vulgaris* L.). Penelitian dilaksanakan di Kebun Percobaan Universitas Djuanda, Ciawi-Bogor, Jawa Barat. Penelitian disusun menggunakan Rancangan Acak Lengkap yang terdiri atas 11 taraf yaitu tanpa pupuk, kipahit 100% R, kirinyuh 100% R, urine sapi 100% R, urea 100% R, kipahit 75% + urea 25% R, kirinyuh 75% + urea 25% R, urine sapi 75% + urea 25% R, kipahit 50% + urea 50% R, kirinyuh 50% + urea 50% R, urine sapi 50% + urea 50% R. Hasil penelitian membuktikan bahwa aplikasi POC sumber nitrogen memiliki hasil yang tidak berbeda nyata dengan aplikasi urea 100% R, sehingga dapat digunakan sebagai alternatif pengganti urea untuk menerapkan sistem *nature farming*.

Kata kunci: *buncis, kipahit, kirinyuh, urine sapi*

