

ABSTRAK

Nurul Adila Putri. 2023. Pengaruh Bokashi Paitan (*Thithonia diversifolia* L.) Dengan Giberelin (GA₃) Terhadap Pertumbuhan Dan Hasil Tanaman Kacang Panjang (*Vigna Sinensis* L.) Varietas Pangeran Anvi. Di bawah bimbingan Adjat Sudrajat dan Yati Setiati Rachmawati.

Produksi kacang panjang di Indonesia yang cenderung menurun dapat dipengaruhi oleh pemupukan dan faktor genetik yang perlu ditingkatkan kualitasnya. Bokashi paitan sebagai pupuk organik berguna memenuhi kebutuhan unsur hara tanaman, sementara GA₃ merupakan zat pengatur tumbuh yang mempengaruhi sifat genetik dan proses fisiologi tanaman. Penelitian dilaksanakan pada bulan Desember 2022 - Maret 2023 di Lahan Kampus II UIN Sunan Gunung Djati Bandung. Metode penelitian menggunakan Rancangan Acak Kelompok 12 perlakuan dengan 3 kali ulangan: A= Kontrol, B= tanpa bokashi + 100 ppm GA₃, C= tanpa bokashi + 200 ppm GA₃, D= 5 t ha⁻¹ bokashi + tanpa GA₃, E= 5 t ha⁻¹ bokashi + 100 ppm GA₃, F= 5 t ha⁻¹ bokashi + 200 ppm GA₃, G= 10 t ha⁻¹ bokashi + tanpa GA₃, H= 10 t ha⁻¹ bokashi + 100 ppm GA₃, I= 10 t ha⁻¹ bokashi + 200 ppm GA₃, J= 15 t ha⁻¹ bokashi + tanpa GA₃, K= 15 t ha⁻¹ bokashi + 100 ppm GA₃, L= 15 t ha⁻¹ bokashi + 200 ppm GA₃. Hasil menunjukkan bahwa kombinasi dosis bokashi paitan dengan konsentrasi GA₃ berpengaruh nyata terhadap tinggi, luas daun, jumlah polong, berat segar polong, dan indeks panen, namun tidak berpengaruh nyata terhadap nisbah pupus akar dan bobot kering brangkasan. Kombinasi 10 t ha⁻¹ bokashi dan 200 ppm GA₃ memiliki pengaruh terbaik terhadap tinggi tanaman. Kombinasi 15 t ha⁻¹ bokashi tanpa GA₃ memiliki pengaruh terbaik terhadap luas daun. Kombinasi 5 t ha⁻¹ tanpa GA₃ memiliki pengaruh terbaik terhadap jumlah polong, berat segar polong, dan indeks panen.

Kata Kunci : Tanaman Kacang Panjang, Bokashi Paitan, GA₃

ABSTRACT

Nurul Adila Putri. 2023. Effect of Bokashi Paitan (*Tithonia diversifolia* L.) with Gibberellin (GA₃) on the Growth and Yield of Long Bean (*Vigna Sinensis* L.) of Pangeran Anvi Variety. Supervised by Adjat Sudrajat and Yati Setiati Rachmawati.

Long bean production in Indonesia has tended to decrease can be influenced by fertilization and genetic factors that need to be improved in quality. Bokashi paitan as an organic fertilizer is useful for meeting plant nutrient needs, while GA₃ is a growth regulator that influences the genetic characteristics and physiological processes of plants. The research was conducted in December 2022 - March 2023 on Campus II UIN Sunan Gunung Djati Bandung. The research method used a randomized block design with 12 treatments with 3 replications: A= Control, B= without bokashi + 100 ppm GA₃, C= without bokashi + 200 ppm GA₃, D= 5 t ha⁻¹ bokashi + without GA₃, E= 5 t ha⁻¹ bokashi + 100 ppm GA₃, F= 5 t ha⁻¹ bokashi + 200 ppm GA₃, G= 10 t ha⁻¹ bokashi + without GA₃, H= 10 t ha⁻¹ bokashi + 100 ppm GA₃, I= 10 t ha⁻¹ bokashi + 200 ppm GA₃, J= 15 t ha⁻¹ bokashi + without GA₃, K= 15 t ha⁻¹ bokashi + 100 ppm GA₃, L= 15 t ha⁻¹ bokashi + 200 ppm GA₃. The results showed that the combination of bokashi paitan dose and GA₃ concentration had a significant effect on height, leaf area, number of pods, fresh weight of pods, and harvest index, but had no significant effect on the shoot root ratio and stover dry weight. The combination of 10 t ha⁻¹ bokashi and 200 ppm GA₃ had the best effect on plant height. The combination of 15 t ha⁻¹ bokashi without GA₃ had the best effect on leaf area. The combination of 5 t ha⁻¹ without GA₃ had the best effect on pod number, pod fresh weight, and harvest index.

Keyword : Long Bean Plants, Bokashi Paitan, GA₃