

## ABSTRAK

**Fatya Afwa Cameilia, 2019. Pengaruh Dosis Pupuk Kotoran Ayam dan Konsentrasi Zat Pengatur Tumbuh Giberelin (GA3) Terhadap Pertumbuhan dan Hasil Tanaman Buncis (*Phaseolus vulgaris* L.) Varietas Perkasa. Di bawah Bimbingan Adjat Sudrajat dan Suryaman Birnadi.**

Buncis (*Phaseolus vulgaris* L.) merupakan salah satu tanaman sayuran polong yang memiliki kandungan karbohidrat, protein, serat dan vitamin yang bermanfaat bagi kesehatan. Permintaan pasar akan tanaman buncis semakin meningkat, dengan demikian upaya untuk meningkatkan produksi tanaman buncis yaitu dengan penambahan pupuk kotoran ayam dan zat pengatur tumbuh giberelin (GA3). Tujuan penelitian ini untuk mempelajari pengaruh interaksi antara dosis pupuk kotoran ayam dengan konsentrasi giberelin (GA3) terhadap pertumbuhan dan hasil tanaman buncis dan mengetahui dosis pupuk kotoran ayam dan konsentrasi giberelin yang optimum terhadap pertumbuhan dan hasil tanaman buncis (*Phaseolus vulgaris* L.). Penelitian ini dilaksanakan pada bulan April sampai bulan Juni 2019 di kebun percobaan Fakultas Pertanian Universitas Padjajaran Ciparanje, Jatinagor, Kabupaten Sumedang, Jawa Barat. Metode yang digunakan dalam penelitian ini adalah Rancangan Acak Kelompok (RAK) faktorial dua faktor dengan tiga kali ulangan. Faktor pertama yaitu: pupuk kotoran ayam = 0 t ha<sup>-1</sup> (p0), 5 t ha<sup>-1</sup> (p1), 10 t ha<sup>-1</sup> (p2), dan 15 t ha<sup>-1</sup> (p3). Faktor kedua yaitu: giberelin (GA3) = ppm (g0), 25 ppm (g1) dan 50 pm (g2). Hasil penelitian menunjukkan bahwa terjadi interaksi antara taraf perlakuan pupuk kotoran ayam dan giberelin (GA3) terhadap tinggi tanaman dan luas daun. Secara mandiri taraf perlakuan pupuk kotoran ayam 10 t ha<sup>-1</sup> berpengaruh nyata terhadap bobot segar polong, bobot kering polong, bobot segar brangkasan tanaman, dan bobot kering brangkasan tanaman. Taraf perlakuan giberelin (GA3) 25 ppm berpengaruh nyata terhadap bobot segar polong, bobot kering polong, bobot segar brangkasan tanaman, dan bobot kering brangkasan tanaman.

Kata Kunci: Buncis (*Phaseolus vulgaris* L.), pupuk kotoran ayam, giberelin (GA3)

## ABSTRACT

**Fatya Afwa Cameilia, 2019. Effect of Chicken Manure Fertilizer Dosage and Concentration of Growth Regulator Gibberellin (GA3) on Growth and Yield of Beans (*Phaseolus Vulgaris* L.) Variety of Perkasa. Supervised by Adjat Sudrajat and Suryaman Birnadi.**

Beans (*Phaseolus vulgaris* L.) is a legume plant that contains carbohydrates, proteins, fiber and vitamins which are beneficial for health. Market demand for green beans is increasing, thus efforts to increase bean production including by adding the chicken manure and gibberellin growth regulators (GA3). The purpose of this study was to study the effect of the interaction between the dosage of chicken manure and concentration of gibberellin (GA3) on the growth and yield of beans and determine the optimum dosage of chicken manure and concentration of gibberellin on the growth and yield of beans (*Phaseolus vulgaris* L.). This research was carried out in April to June 2019 in the experimental garden of Padjajaran University agriculture faculty, Ciparanje, Jatinangor, Sumedang Regency, West Java. The method used in this study was a two factors factorial randomized block design with three replications. The first factor is: chicken manure = 0 t ha<sup>-1</sup> (p0), 5 t ha<sup>-1</sup> (p1), 10 t ha<sup>-1</sup> (p2), and 15 t ha<sup>-1</sup> (p3). The second factor is: gibberellin (GA3) = 0 ppm (g0), 25 ppm (g1), and 50 ppm (g2). The results showed that there was an interaction between the treatment level of chicken manure and gibberellin growth regulator (GA3) to plant height and leaf area. Independently treatment level of chicken manure 10 t ha<sup>-1</sup> significantly effected on the pod fresh weight, pod dry weight, plant fresh weight, and plant dry weight. The treatment level of gibberellin (GA3) 25 ppm significantly effected on the pod fresh weight, pod dry weight, plant fresh weight, and plant dry weight.

Keywords: Beans (*Phaseolus vulgaris* L.), chicken manure, gibberellin (GA3)