

## ABSTRAK

### **PENGARUH KOMBINASI TAKARAN PORASI KOTORAN KAMBING DAN KONSENTRASI PUPUK HAYATI M-BIO TERHADAP PERTUMBUHAN DAN HASIL BAWANG MERAH (*Allium ascalonicum* L.)**

Oleh  
**Muhamad Fikri Robbanda**  
NPM 175001045

**Dosen Pembimbing :**  
**Rudi Priyadi**  
**Darul Zumani**

Salah satu upaya yang dapat dilakukan untuk meningkatkan produksi bawang merah adalah dengan meningkatkan hasil bawang melalui pemupukan berimbang. Penelitian ini bertujuan untuk mengetahui pengaruh kombinasi takaran porasi kotoran kambing dan konsentrasi pupuk hayati M-BIO terhadap pertumbuhan dan hasil tanaman bawang merah. Penelitian dilakukan di Kebun Penelitian Fakultas Pertanian Universitas Siliwangi Tasikmalaya pada ketinggian tempat 374 Meter Di atas Permukaan Laut (MDPL) pada bulan Januari sampai dengan Maret 2022. Menggunakan Rancangan Acak Kelompok (RAK) yang terdiri dari 7 perlakuan dan diulang sebanyak 4 kali. yaitu, A = Kontrol, B = kombinasi takaran porasi kotoran kambing 5 t ha<sup>-1</sup> + konsentrasi M-BIO 10 mL L<sup>-1</sup>, C = kombinasi takaran porasi kotoran kambing 10 t ha<sup>-1</sup> + konsentrasi M-BIO 10 mL L<sup>-1</sup>, D = kombinasi takaran porasi kotoran kambing 15 t ha<sup>-1</sup> + konsentrasi M-BIO 10 mL L<sup>-1</sup>, E = kombinasi takaran porasi kotoran kambing 5 t ha<sup>-1</sup> + konsentrasi M-BIO 20 mL L<sup>-1</sup>, F = kombinasi takaran porasi kotoran kambing 10 t ha<sup>-1</sup> + konsentrasi M-BIO 20 mL L<sup>-1</sup>, dan G = kombinasi takaran porasi kotoran kambing 15 t ha<sup>-1</sup> + konsentrasi M-BIO 20 mL L<sup>-1</sup>. Hasil penelitian menunjukkan bahwa pemberian kombinasi takaran porasi kotoran kambing dan konsentrasi pupuk hayati M-BIO berpengaruh nyata terhadap tinggi tanaman, jumlah daun, jumlah umbi per rumpun, bobot umbi per rumpun dan hasil umbi per petak dan per hektar serta didapat perlakuan yang paling baik yaitu perlakuan D = kombinasi takaran porasi kotoran kambing 15 t ha<sup>-1</sup> + konsentrasi M-BIO 10 mL L<sup>-1</sup> , dan perlakuan G = kombinasi takaran porasi kotoran kambing 15 t ha<sup>-1</sup> + konsentrasi M-BIO 20 mL L<sup>-1</sup> .

Kata kunci : Bawang merah, porasi kotoran kambing, pupuk hayati M-BIO

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### THE EFFECT OF THE COMBINED DOSE ORGANIC MANURE FERMENTED (PORASI) OF GOAT MANURE AND THE CONCENTRATION OF M-BIO FERTILIZER ON THE GROWTH AND YIELD OF SHALLOTS (*Allium ascalonicum* L.)

By  
**Muhamad Fikri Robbanda**  
NPM 175001045

**Guided by:**  
**Rudi Priyadi**  
**Darul Zumani**

One of the efforts that can be done to increase the production of shallots is to increase the yield of onions through balanced fertilization. This study aims to determine the effect of the combined dose of goat manure and the concentration of M-BIO biofertilizer on the growth and yield of shallots. The experiment was conducted at the Experimental Garden of the Faculty of Agriculture, Siliwangi University, Tasikmalaya at an altitude of 374 Meters Above Sea Level (MASL) from January to March 2022. Using a Randomized Block Design (RBD) which consisted of 7 treatments and was repeated 4 times. that is, A = Control , B = combined dose organic manure fermented of goat manure 5 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 10 mL L<sup>-1</sup>, C = combined dose organic manure fermented of goat manure 10 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 10 mL L<sup>-1</sup>, D = combined dose organic manure fermented of goat manure 15 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 10 mL L<sup>-1</sup>, E = combined dose organic manure fermented of goat manure 5 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 20 ml L , F = combined dose organic manure fermented of goat manure 10 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 20 mL L<sup>-1</sup>, and G = combined dose organic manure fermented of goat manure 15 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 20 mL L<sup>-1</sup> . The research results showed that the combination of the dose of goat manure and the concentration of M-BIO biological fertilizer had a significant effect on plant height, number of leaves, number of tubers per clump, tuber weight per clump and tuber yield per plot and per hectare and the best treatment was obtained, namely treatment D combined dose organic manure fermented of goat manure = 15 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 10 mL L<sup>-1</sup> , and treatment G combined dose organic manure fermented of goat manure = 15 t ha<sup>-1</sup> + concentration of M-BIO fertilizer 20 mL L<sup>-1</sup> .

Keywords: Shallots, goat manure, M-BIO biofertilizer