

EVALUASI PUPUK AMIBOOST[®] TERHADAP MORFOLOGI, PRODUKSI BIOMASSA, KANDUNGAN NUTRIEN DAN KETAHANAN STRES AIR KEDELAI ANJASMORO (*Glycine max* L. Merr.)

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INTISARI

Penelitian ini bertujuan untuk mengevaluasi dosis penambahan pupuk Amiboost[®] A1 pada tanaman kedelai varietas Anjasmoro terhadap morfologi, biomassa produksi, kandungan nutrien, dan ketahanan stres air. Penelitian ini menggunakan kedelai varietas Anjasmoro. Penelitian dilaksanakan selama 6 bulan pada bulan Januari sampai dengan Juni 2022. Tempat penelitian dilakukan di rumah kaca Fakultas Peternakan Universitas Gadjah Mada, Yogyakarta. Pemupukan dilakukan dengan 5 perlakuan dalam *randomized complete blok design* dengan 5 kali ulangan yaitu tanpa perlakuan pupuk (hanya air), pupuk Amiboost[®] A1 0,25 ml, 0,5 ml dan 1 ml serta kontrol dengan pupuk EM4. Hasil penelitian menunjukkan pupuk Amiboost[®] A1 berpengaruh nyata ($P < 0,05$) terhadap produksi segar, produksi bahan kering, produksi bahan organik, serat kasar, protein kasar, BETN, dan TDN, tetapi berpengaruh tidak nyata ($P > 0,05$) terhadap tinggi tanaman, jumlah polong, dan jumlah daun. Kesimpulan yang dapat diambil yaitu pemberian pupuk Amiboost[®] A1 dengan dosis 1 ml/m² mampu meningkatkan produksi segar, produksi bahan kering, produksi bahan organik, sedangkan dosis 0,25 ml/m² mampu menurunkan SK, dan memperbaiki PK, LK, BETN, dan TDN jerami *Glycine max* L. Merr. varietas Anjasmoro.

Kata kunci: Dosis pupuk Amiboost[®] A1, Kandungan nutrisi, Kedelai anjasmoro, Ketahanan stres air, Morfologi, Produksi biomasa.

EVALUATION OF AMIBOOST FERTILIZER ON MORPHOLOGY, BIOMASS PRODUCTION, NUTRIENT CONTENT AND WATER STRESS RESISTANCE OF ANJASMORO SOYBEAN (*Glycine max L. Merr.*)

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ABSTRACT

This study aims to evaluate the additional dose of Amiboost[®] A1 fertilizer on Anjasmoro variety soybean plants on morphology, biomass production, nutrient content and water stress resistance. This research uses the Anjasmoro soybean variety. The research was carried out for 6 months from January to June 2022. The research location was carried out in the greenhouse of the Faculty of Animal Husbandry, Gadjah Mada University, Yogyakarta. Fertilization was carried out with 5 treatments in a randomized complete block design with 5 repetitions, namely without fertilizer treatment (only water), Amiboost[®] A1 0.25 ml, 0.5 ml and 1 ml fertilizer and control with fertilizer EM4. The results showed that Amiboost[®] A1 fertilizer had a significant effect ($P < 0.05$) on fresh production, dry matter production, organic matter production, crude fiber, crude protein, BETN, and TDN, but the effect was not significant ($P > 0.05$) on plant height, number of pods, and number of leaves. The results showed that there was no significant effect ($P > 0.05$) on plant height, number of pods and number of leaves. The conclusion that can be drawn is that the application of Amiboost[®] A1 at a dose of 1 ml/m² is able to increase fresh production, dry matter production, organic matter production, while a dose of 0.25 ml/m² is able to reduce SK, and improve PK, LK, BETN, and TDN of *Glycine max L. Merr* straw. var. Anjasmoro.

Keywords: Fertilizer dosage Amiboost[®] A1, Nutrien content, Anjasmoro soybean, Morphology, Biomass production, Water stress.