

**PENGUJIAN BAHAN ORGANIK BOKASHAME TERHADAP SIFAT FISIKA
TANAH ENTISOL SERTA PERTUMBUHAN DAN PRODUKSI TANAMAN
EDAMAME (*Glycine max* (L) *merril*)**

Rendy Anggriawan *)

*)Fakultas Pertanian, Universitas Muhammadiyah Jember
Email : Rendy_anggriawan@ymail.com

ABSTRAK

Penelitian pengujian bahan organik bokashame terhadap sifat fisika tanah entisol serta pertumbuhan dan produksi tanaman edamame (*Glycine max* (L) *merril*). Bertujuan untuk mengetahui pengaruh pemberian bahan organik bokashame terhadap beberapa sifat fisika tanah entisol serta hubungannya terhadap pertumbuhan dan produksi tanaman edamame. Rancangan yang digunakan RAK non faktorial. Kesimpulan dari penelitian ini adalah sebagai berikut : (1) Terdapat hubungan penggunaan bahan organik bokashame berpengaruh meningkatkan kadar lengas sebesar 24.58%, porositas tanah sebesar 47.76%, kapasitas menahan air 43.01%, kadar air kapasitas lapang sebesar 48.48% , dan menurunkan kerapatan massa tanah sebesar 1.08 g cm^{-3} serta kerapatan butir tanah sebesar $2,29 \text{ g cm}^{-3}$. (2) Penggunaan bahan organik bokashame berpengaruh terhadap jumlah daun 30 hst sebesar 21 helai, panjang akar sebesar 23.94 cm, berat basah akar sebesar 7.33 g, berat kering akar sebesar 3.03 g, jumlah polong sebanyak 38 polong, berat polong sebesar 45.78 g, berat basah brangkasan sebesar 65.52 g, dan berat kering brangkasan sebesar 30,21 g. Penggunaan dosis 16,5 ton/ha merupakan dosis optimum untuk berat polong per tanaman. (3)Terdapat hubungan perubahan sifat fisika tanah entisol terhadap produksi tanaman edamame yaitu meningkatnya kapasitas menahan air sebesar 33.38% dapat meningkatkan berat polong per tanaman sebesar 41,77 g.

Kata Kunci : Bokashame, Entisol, Edamame

ABSTRACT

The experiment about testing bokashame's organic matter to soil physical properties of entisol with growth and production edamame's plant (*Glycine max* (L) *merril*). The objective of experiment was know about influence bokashame's organic matter to the soil physical properties and correlation with growth and production edamame's plant. The experiment was use randomized group design non factorial. The conclusion of these experiment is : (1) There are correlation bokashame's organic matter was increase soil moisture 24,58%, Soil porosity 47,76%, water holding capacity 43,01%, field water content was 48,48%, and decreasing bulk density $2,29 \text{ g cm}^{-3}$. (2) Bokashame's organic matter was influence to total leaf in 30 *dap* as 21 sheet, length of root 23,94 cm, wet weight of root as 7,33 g, dry weight of root as 3,03 g, total legumes as 38, weight of legumes 45,78 g, wet weight of plant was 65,52 g and dry weight of plant was 30,21 g. Dosage 16,5 ton/ha is optimum dosage for weight of legumes. There are correlation with soil physic properties on growth and production edamame, increasing water holding capacity was collateral with weight of legumes 41,77 g.

Key word : Bokashame, Entisol, Edamame