PENGARUH PEMBERIAN PUPUK ORGANIK CAIR BIOURIN SAPI DAN JENIS MULSA ORGANIK TERHADAP PERTUMBUHAN DAN HASIL TANAMAN KACANG PANJANG (*Vigna sinensis* L.)

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ABSTRAK

Pupuk organik cair dan mulsa organik dapat menyediakan unsur hara serta mempertahankan kondisi tanah. Penelitian bertujuan untuk menentukan dosis pupuk biourin sapi dan mulsa organik yang tepat pada pertumbuhan dan hasil tanaman kacang panjang. Penelitian dilaksanakan pada bulan November 2020 sampai dengan bulan Januari 2021, di Krajan, Wedomartani, Ngemplak, Sleman, Yogyakarta. Penelitian menggunakan percobaan faktorial dengan Rancangan Acak Kelompok Lengkap terdiri dari dua faktor ditambah satu kontrol (tanpa biourin sapi dan mulsa organik). Faktor pertama adalah dosis pupuk organik cair biourin sapi (S) terdiri dari 3 taraf yaitu S_1 = 400 ml/tanaman; S_2 = 500 ml/tanaman; S_3 = 600 ml/tanaman. Faktor kedua adalah mulsa organik (M) terdiri dari 3 taraf yaitu M_1 = Jerami padi; M_2 = Daun alang – alang; M_3 = Batang jagung. Tanaman kontrol yaitu pemberian pupuk kimia Urea, SP-36, dan KCl. Hasil penelitian menunjukkan pupuk organik cair biourin sapi dan jenis mulsa organik memberikan hasil lebih baik daripada kontrol pada parameter ukuran sisi luar penampang batang, panjang daun, lebar daun, umur mulai berbunga, umur mulai panen, panjang polong, diameter polong, bobot per polong, jumlah polong per tanaman, dan bobot polong per tanaman. Ada interaksi antara pemberian pupuk organik cair biourin sapi dan jenis mulsa organik terhadap hasil tanaman kacang panjang pada bobot polong per tanaman. Mulsa organik jerami padi memberikan hasil terbaik pada panjang daun 35 HST, lebar daun 35 HST, dan bobot per polong. Biourin sapi 500 ml/tanaman memberikan hasil terbaik pada panjang daun 35 HST, lebar daun 35 HST, umur mulai berbunga, umur mulai panen, dan bobot per polong.

Kata kunci : biourin sapi, mulsa organik, kacang panjang

***EFFECT OF ORGANIC FERTILIZER BIOURIN COW LIQUID AND TYPE OF ORGANIC MULCH ON THE GROWTH AND YIELD OF LONG BEAN PLANTS* (*Vigna sinensis* L.)**

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ABSTRACT

Liquid organic fertilizers and organic mulch can provide nutrients as well as maintain soil conditions. The study aims to determine the right dose of cow biourine fertilizer and organic mulch on the growth and yield of long bean crops. The research was conducted from November 2020 to January 2021, in Krajan, Wedomartani, Ngemplak, Sleman, Yogyakarta. The study used a factorial experiment with a Complete Group Randomized Design consisting of two factors plus one control (without cow biourine and organic mulch). The first factor is the dose of organic fertilizer liquid cow biourine (S) consists of 3 levels, namely S_1 = 400 ml / plant; S_2 = 500 ml/plant; S_3 = 600 ml/plant. The second factor is organic mulch (M) consisting of 3 levels, namely M_1 = Straw rice; M_2 = Reed leaves; M_3 = Corn stalks. Control plants are the provision of chemical fertilizers Urea, SP-36, and KCl. The results showed that cow biourine liquid organic fertilizers and organic mulch types provided better yields than controls on the parameters of the outer side size of the stem cross-section, leaf length, leaf width, flowering age, harvest life, pod length, pod diameter, weight per pod, number of pods per plant, and pod weight per plant. There was an interaction between the provision of liquid organic fertilizers of cow biourine and organic mulch types to the yield of long bean crops at the weight of the pods per crop. Organic mulch rice straw gave the best results at leaf length 35 HST, leaf width 35 HST, and weight per pod. Biourine of cow 500 ml/plant gave the best results on the leaf length of 35 HST, leaf width 35 HST, age of flowering, age of harvest, and weight per pod.

Keywords : *cow biourine, organic mulch, long beans*