

RINGKASAN

Mentimun (*Cucumis sativus* L.) merupakan salah satu jenis sayuran yang memiliki banyak manfaat. Kebutuhan mentimun terus meningkat. Peningkatan kebutuhan tersebut belum diimbangi dengan kenaikan produksi mentimun. Tujuan dilaksanakannya penelitian ini antara lain (1) mengetahui pengaruh konsentrasi pupuk organik cair urin kelinci terhadap pertumbuhan dan hasil mentimun, (2) mengetahui pengaruh kombinasi pupuk sintetik dosis berbeda dan pupuk organik cair urin kelinci dengan konsentrasi berbeda terhadap pertumbuhan dan hasil mentimun.

Penelitian dilaksanakan di lahan Desa Karang Duren, Kecamatan Sokaraja, Kabupaten Banyumas, dengan ketinggian 33 meter di atas permukaan laut. Penelitian dilaksanakan selama 3 bulan, mulai bulan Oktober sampai Desember 2017. Rancangan percobaan yang digunakan adalah rancangan acak kelompok lengkap (RAKL) yang terdiri atas 10 perlakuan dan 3 kali ulangan. Perlakuan yang dicoba meliputi N-P-K 100% dosis rekomendasi (K), 10 ml/L POC urin kelinci (U1), 20 ml/L POC urin kelinci (U2), 30 ml/L POC urin kelinci (U3), N-P-K sebanyak 25% dari dosis rekomendasi dan 10 ml/L POC urin kelinci (P1U1), N-P-K sebanyak 25% dari dosis rekomendasi dan 20 ml/L POC urin kelinci (P1U2), N-P-K sebanyak 25% dari dosis rekomendasi dan 30 ml/L POC urin kelinci (P1U3), N-P-K sebanyak 50% dari dosis rekomendasi dan 10 ml/L POC urin kelinci (P2U1), N-P-K sebanyak 50% dari dosis rekomendasi dan 20 ml/L POC urin kelinci (P2U2), N-P-K sebanyak 50% dari dosis rekomendasi dan 30 ml/L POC urin kelinci (P2U3). Variabel pengamatan meliputi panjang tanaman, jumlah daun, luas daun, bobot akar segar, bobot akar kering, bobot tajuk segar, bobot tajuk kering, waktu munculnya bunga betina, jumlah buah per tanaman, panjang buah per tanaman, bobot buah per tanaman, bobot buah per petak, dan indeks panen. Data hasil pengamatan dianalisis dengan uji F, jika berbeda nyata dilanjutkan dengan uji DMRT dengan taraf kesalahan 5%.

Hasil penelitian menunjukkan bahwa (1) pupuk organik cair urin kelinci konsentrasi 10, 20 dan 30 ml/L memberikan pertumbuhan dan hasil mentimun yang setara dengan N-P-K 100% dosis rekomendasi kecuali terhadap panjang tanaman dan waktu munculnya bunga betina, (2) aplikasi pupuk N-P-K sebanyak 25 dan 50% dari dosis rekomendasi dan pupuk organik cair urin kelinci konsentrasi 10, 20 dan 30 ml/L memberikan pertumbuhan dan hasil mentimun yang setara dengan N-P-K 100% dosis rekomendasi kecuali terhadap panjang tanaman dan waktu munculnya bunga betina.

SUMMARY

Cucumber (cucumis sativus L.) is one type of vegetable that has many benefits. The needs for cucumber continue to increase, but the increase in cucumber demand is not well matched by the same amount of increase in cucumber production. The purpose of this research were (1) to analyze the effects of liquid organic fertilizer urine concentration from rabbit on cucumber's growth and yields, (2) to analyze the effect of combination of different dose from synthetic fertilizer and liquid organic fertilizer urine from rabbit with different concentration on cucumber's growth and yields.

The research was carried out in the land of Karang Duren village, Sokaraja Sub-district, Banyumas Disrtrict, at 33 m alltitude asl. The research was conducted over 3 months, from October until Desember 2017. The experiment used random complete block design group (RCBD) consisting of ten treatment and three blocks. The treatments were N-P-K 100% according to recommendation dose (K), 10 ml liquid organic fertilizer urine from rabbit (U1), 20 ml liquid organic fertilizer urine from rabbit (U2), 30 ml liquid organic fertilizer urine from rabbit (U3), N-P-K as much as 25% of the recommendation dose with 10 ml liquid organic fertilizer urine from rabbit (P1U1), N-P-K as much as 25% of the recommendation dose with 20 ml liquid organic fertilizer urine from rabbit (P1U2), N-P-K as much as 25% of the recommendation dose with 30 ml liquid organic fertilizer urine from rabbit (P1U3), N-P-K as much as 50% of the recommendation dose with 10 ml liquid organic fertilizer urine from rabbit (P2U1), N-P-K as much as 50% of the recommendation dose with 20 ml liquid organic fertilizer urine from rabbit (P2U2), N-P-K as much as 50% of the recommendation dose with 30 ml liquid organic fertilizer urine from rabbit (P2U3). Observed variables were plant length (cm), leaf quantity (leaves), leaf area (cm²), root fresh weight (g), root dry weight (g), plant fresh weight (g), plant dry weight (g), the time of the appearance of a female flower (days after planting), number of fruits per plant (fruits), fruit length per plant (cm), fruit weight per plant (g), fruit weight per plot (g), harvest index (%).

The research results performed that (1) liquid organic fertilizer urine from rabbit with 10, 20 and 30 ml/L concentration gave an equal growth and yields as N-P-K 100% according to recommendation dose except on plant length and time of the appearance of a female flower, (2) application of N-P-K as much as 25 and 50% of the recommendation dose and 10, 20 and 30 ml/L concentration of liquid organic fertilizer urine from rabbit gave an equal growth and yields as N-P-K 100% according to recommendation dose except on plant length and time of the appearance of a female flower.