

RINGKASAN

Selada (*Lactuca sativa* L.) merupakan tanaman sayur yang mempunyai kandungan gizi tinggi sehingga permintaannya cukup tinggi. Saat ini, budidaya selada masih menggunakan pupuk anorganik yang dapat merusak dan menurunkan produktifitas tanah. Oleh karena itu, perlu diupayakan budidaya tanaman selada secara organik menggunakan pupuk organik berbahan baku limbah ternak yang ada di sekitar petani seperti *Azolla microphylla*, urin kelinci, dan kotoran ayam. Tujuan dilaksanakannya penelitian ini antara lain (1) mengetahui pengaruh dosis pupuk kandang ayam terhadap pertumbuhan dan hasil tanaman selada organik, (2) mengetahui pengaruh dosis pupuk organik cair berbasis *Azolla microphylla* dan urin kelinci terhadap pertumbuhan dan hasil tanaman selada organik, (3) mengetahui pengaruh dosis kombinasi antara dosis pupuk kandang ayam dengan dosis pupuk organik cair berbasis *Azolla microphylla* dan urin kelinci terhadap pertumbuhan dan hasil tanaman selada organik.

. Penelitian ini dilakukan pada rumah plastik yang berada di Desa Melung, Kecamatan Kedungbanteng, Kabupaten Banyumas, dengan ketinggian tempat kurang lebih 580 meter di atas permukaan laut. Penelitian dilaksanakan selama 3 bulan, mulai bulan Agustus sampai Oktober 2018. Rancangan percobaan yang digunakan adalah rancangan acak kelompok lengkap (RAKL) yang terdiri atas 16 perlakuan dan 3 kali ulangan. Perlakuan yang dicoba meliputi dua faktor yaitu dosis pupuk kandang ayam dengan dosis 0 ton/ha, 20 ton/ha, 25 ton/ha, dan 30 ton/ha. Faktor yang lain adalah dosis pupuk organik cair berbasis *Azolla microphylla* dan urin kelinci dengan dosis 0 ml/tanaman, 135 ml/tanaman, 180 ml/tanaman, dan 225 ml/tanaman. Variabel yang diamati meliputi tinggi tanaman (cm), jumlah daun (helai), panjang akar (cm), bobot akar segar (g), bobot akar kering (g), bobot tanaman segar (g), bobot tanaman kering (g), bobot tajuk segar (g), dan bobot tajuk kering (g).

Hasil penelitian menunjukkan bahwa dosis pupuk kandang ayam mampu meningkatkan pertumbuhan dan hasil tanaman selada organik, dengan dosis 20 ton/ha merupakan dosis terbaik pada tanaman selada. Dosis pupuk organik cair berbasis *Azolla microphylla* dan urin kelinci tidak mampu meningkatkan pertumbuhan dan hasil tanaman selada organik. kombinasi dosis pupuk kandang ayam dan dosis pupuk organik cair berbasis *Azolla microphylla* dan urin kelinci tidak mampu meningkatkan pertumbuhan dan hasil tanaman selada organik.

SUMMARY

Lettuce (Lactuca sativa L.) is a vegetable plant that has a high nutrient content so the demand is quite high. At present, lettuce cultivation still uses inorganic fertilizers which can damage and reduce soil productivity. Therefore, it is necessary to strive for organic cultivation of lettuce using organic fertilizer made from livestock waste around farmers such as Azolla microphylla, rabbit urine, and chicken manure. This research aimed to know : (1) The effect of chicken manure doses on growth and yield of organic lettuce crops, (2) The effect of liquid organic fertilizer doses based Azolla microphylla and rabbit urine on growth and yield of organic lettuce crops, and (3) The combination effect of chicken manure doses and liquid organic fertilizer doses based Azolla microphylla and rabbit urine on growth and yield of organic lettuce crops.

This research was conducted at screen houses located in Melung Village, Kedungbanteng Subdistrict, Banyumas Regency, with altitude of approximately 580 meters above sea level. The research was conducted for 3 months, from August to October 2018. The experimental design used was a complete randomized block design consisting of 16 treatments and 3 replications. The treatments that were tried included two factors, namely doses of chicken manure with doses of 0 tons / ha, 20 tons / ha, 25 tons / ha, and 30 tons / ha. Another factor is the dose of Azolla microphylla based liquid organic fertilizer and rabbit urine with a dose of 0 ml / plant, 135 ml / plant, 180 ml / plant, and 225 ml / plant. Variables observed included plant height (cm), number of leaves (strands), root length (cm), fresh root weight (g), dry root weight (g), fresh plant weight (g), dry plant weight (g), fresh canopy weight (g), and dry canopy weight (g).

Results of the research showed that: (1) doses of chicken manure gave the effect of increasing growth and organic lettuce crop, the dose of 20 tonnes per ha was the best effect on lettuce crops (2) doses of liquid organic fertilizer based Azolla microphylla and rabbit urine did not increase growth and yield of organic lettuce crops, and (3) a combination doses of chicken manure with a doses of liquid organic fertilizer based Azolla microphylla and rabbit urine did not increase growth and yield of organic lettuce crops.