

## INTISARI

Gusti Helmi Pratama (1510311028) “Uji Efektifitas Pupuk Organik Cair Azolla dan Urin Sapi Terhadap Pertumbuhan dan Produksi Tanaman Padi Sawah. Dosen Pembimbing Utama Dr. Ir. M.Hazmi,DESS. Dosen Pembimbing Anggota Ir. Hudaini Hasbi, Msc. Agr.

Tujuan dari penelitian ini adalah Untuk mengetahui pengaruh konsentrasi pupuk organik cair azolla dan urin sapi yang paling efektif untuk pertumbuhan dan produksi tanaman padi sawah, Untuk mengetahui pengaruh varietas Ciherang dan vaietas IR64 terhadap pertumbuhan dan produksi padi sawah, Untuk mengetahui interaksi antara konsentrasi pupuk organik cair azolla urin sapi dan varietas Ciherang, varietas IR64 Terhadap pertumbuhan dan produksi padi sawah. Penelitian ini dilaksanakan di Desa Sulek, Kecamatan Tlogosari, Kabupaten Bondowoso. Dimulai pada 3 Maret 2019 sampai 21 Juni 2019 dengan ketinggian tempat  $\pm$  510 meter di atas permukaan laut (dpl).

Penelitian dilakukan secara faktorial (5 x 2) dengan pola dasar Rancangan Acak Kelompok (RAK) yang terdiri dari dua faktor yaitu faktor pertama Pemberian M1 : POC azolla dan urin sapi 0 ml/l air ( Kontrol ), M2 : POC azolla dan urin sapi 100 ml/l air, M3 : POC azolla dan urin sapi 125 ml/l air, M4 : POC azolla dan urin sapi 150 ml/l air, M5 : POC azolla dan urin sapi 175 ml/l air. Faktor kedua V1 : Varietas Ciherang dan V2 : Varietas IR64. Masing-masing perlakuan diulang 3 kali.

Hasil penelitian menunjukkan bahwa perlakuan pemberian konsentrasi pupuk organik cair azolla dan urin sapi memberikan pengaruh terhadap semua variabel pengamatan dan Perlakuan M5 ( Konsenstrasi 175 ml/l air ) merupakan perlakuan yang terbukti efektif terhadap pertumbuhan dan produksi padi sawah. Perlakuan varietas memberikan pengaruh terhadap variabel pengamatan tinggi tanaman 45 hst, berat berangkas basah dan berat berangkas kering. Perlakuan V2 ( Varietas IR64 ) merupakan perlakuan yang terbukti memberikan pengaruh terhadap pertumbuhan dan produksi padi sawah. Interaksi antara perlakuan konsentrasi pupuk organik cair azolla urin sapi dan faktor varietas memberikan pengaruh terhadap variabel pengamatan tinggi tanaman 30,45 hst dan jumlah anakan total. Perlakuan M3V2 ( Konsentrasi pupuk oragnik cair azolla urin sapi 125 ml/l dan varietas IR64 ) memberikan pengaruh yang efektif terhadap pertumbuhan dan produksi padi sawah.

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**Kata Kunci** : Pupuk Organik Cair, Varietas Ciherang, Varietas IR64, *Azolla*, Urin Sapi

## SUMMARY

Gusti Helmi Pratama (1510311028) "Test the Effectiveness of Azolla and Cow Urine Organic Liquid Fertilizers on Growth and Production of Rice Field Crops. Main Lecturer Dr. Ir. M.Hazmi, DESS. Advisor Lecturer Member Ir. Hudaini Hasbi, MSc. Agr.

The purpose of this study was to determine the effect of the most effective concentration of azolla liquid organic fertilizer and cow urine for the growth and production of lowland rice plants, to determine the effect of Ciherang variety and IR64 variety on the growth and production of lowland rice, to determine the interaction between the concentration of liquid organic fertilizer cow urine azolla and Ciherang variety, IR64 variety on the growth and production of lowland rice. This research was conducted in Sulek Village, Tlogosari District, Bondowoso Regency. Starting on March 3, 2019 until June 21, 2019 with a height of  $\pm$  510 meters above sea level (asl).

The research was conducted in factorial (5 x 2) with the basic pattern of Randomized Group Design (RBD) consisting of two factors, namely the first factor: M1: azolla POC and cow urine 0 ml / 1 water (Control), M2: azolla POC and cow urine 100 ml / 1 water, M3: POC azolla and cow urine 125 ml / 1 water, M4: POC azolla and cow urine 150 ml / 1 water, M5: POC azolla and cow urine 175 ml / 1 water. Second factor V1: Ciherang variety and V2: IR64 variety. Each treatment was repeated 3 times.

The results showed that the treatment of azolla liquid organic fertilizer and cow urine gave effect to all observational variables and M5 treatment (175 ml / 1 water concentration) was a treatment that proved to be effective on the growth and production of lowland rice. Variety treatment gave effect to the observation variables of plant height 45 days, wet wet weight and dry dry weight. V2 treatment (IR64 variety) was a treatment that was proven to have an influence on the growth and production of lowland rice. The interaction between the treatment of the concentration of liquid organic fertilizer of cow urine azolla and the variety factor had an influence on the observation variable of plant height 30,45 days and the total number of tillers. The M3V2 treatment (concentration of 125 ml / 1 cow urine azolla liquid oragnik fertilizer and IR64 variety) has an effective influence on the growth and production of lowland rice.

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**Keywords** : Liquid Organic Fertilizers, Ciherang Varieties, IR64 Varieties, Azolla, Urine Cow