RINGKASAN

Dzarrotun Nafisah. 13112006. Program Sarjana Universitas Muhammadiyah Gresik. Pengaruh Model Budidaya Integrasi Padi Bebek Serta Azolla terhadap Pertumbuhan dan Hasil Tanaman Padi (*Oryza sativa* L.). Dosen Pembimbing I: Ir. Suhaili, M.Si, Dosen Pembimbing II: Rohmatin Agustina, SP., MP.

Lahan tadah hujan berpotensi digunakan sebagai areal peningkatan produksi padi. Kendala utama pada lahan tadah hujan adalah produktivitas lahan yang jauh lebih rendah dibandingkan dengan lahan irigasi, sehingga perlu menerapkan inovasi dalam meningkatkan hasil produksi padi. Model budidaya pertanian terpadu dapat manambah keragaman agro-ekosistem sawah yang terdiri dari (padi, bebek, kompos dan azolla). Tujuan dari penelitian adalah terdapat interaksi nyata antara pemberian jenis pupuk dengan model budidaya integrasi padi dan bebek serta azolla terhadap pertumbuhan dan hasil tanaman padi di lahan sawah tadah hujan.

Percobaan dilaksanakan pada bulan Februari sampai Juni 2017 di Desa Jatirembe, Kecamatan Benjeng, Kabupaten Gresik. Bahan yang digunakan: padi, kompos kotoran bebek, azolla, bebek, dan pupuk NPK. Rancangan yang digunakan dalam penelitian ini adalah rancangan acak kelompok petak terbagi (*Split Plot*) petak utama (PU) Jenis pupuk terdiri dari: Dosis rekomendasi petani (DRP) (N0), kompos kotoran bebek 3,8 t/ha (N1), dan kompos azolla 1,3 t/ha (N2). Sedangkan pada anak petak (AP) model budidaya padi terdiri dari: model budidaya monokultur (P0) dan model budidaya integrasi padi-bebek (P1) terdapat 6 kombinasi perlakuan, masing masing diulang tiga kali.

Hasil penelitian menunjukkan bahwa pertumbuhan tanaman padi dengan perlakuan model budidaya dan jenis pupuk tidak berbeda nyata pada variabel jumlah anakan dan berbeda nyata tertinggi pada perlakuan budidaya integrasi padi-bebek di variabel tinggi tanaman umur 48 hari setelah tanam. Interaksi model budidaya azolla, padi dan bebek menghasilkan beda nyata tertinggi pada jumlah anakan produktif. Model budidaya padi-bebek menunjukkan beda nyata tertinggi pada bobot gabah kering panen (GKP) dan bobot gabah kering giling (GKG) (t/ha), kenaikan rata rata bobot GKP dan GKG dengan model budidaya integrasi padi-bebek terhadap budidaya monokultur yaitu 20 %. Sedangkan untuk jumlah malai, jumlah bulir per malai, bobot 100 biji, prosentase gabah hampa dan prosentase gabah isi tidak menunjukkan perbedaan nyata.

Kata kunci: *padi, kompos kotoran bebek, azolla, bebek dan model budidaya padi*

ABSTRACT

Rainfed land has potential to be used as an area for increasing rice production. The main constraint on rainfed land is the productivity of land that is much lower than that of irrigated land, so it is necessary to apply innovation in increasing rice production. Integrated agricultural cultivation models can increase the diversity of rice field agro-ecosystems consisting of (rice, duck, compost and azolla). The purpose of this study is there is a real interaction between the type of fertilizer and the cultivation model of rice and duck integration and azolla on the growth and yield of rice plants in rainfed lowland. The experiment was conducted from February to June 2017 in Jatirembe Village, Benjeng, Gresik. Materials used are: rice, duck manure compost, azolla, duck, and NPK fertilizer. The design used in this study is a random plot of split plot (PU) type of fertilizer consisting of: Dosage recommendation (DRP) (N0), duck manure compost 3.8 t / ha (N1), and azolla 1.3 t / ha (N2) compost. Where as in the subplot (AP) rice cultivation model consisted of: monoculture cultivation model (P0) and rice-duck integration cultivation model (P1) there were 6 treatment combinations, each repeatedof three times. The results showed that the growth of rice plants with treatment model and type of fertilizer was not significantly different in the variable number of tillers and the highest significant difference in the treatment of cultivation of rice-duck integration at plant height variables aged 48 days after planting. The interaction of azolla cultivation model, rice and duck produced the highest significant difference in the number of productive tillers. The model of rice-duck cultivation showed the highest significant difference in the dry grain production weight (GKP) and milled dry grain weight (GKG) (t/ha), an increase in the average weight of GKP and MPD with a model of cultivation of rice-duck integration to monoculture cultivation that is 20 %. As for the number of panicles, the number of grains per panicle, the weight of 100 seeds, the percentage of empty grains and the percentage of filled grain did not show any significant differences.

Keywords: *rice, duck compost, azolla, duck and rice cultivation model*