Aplikasi Pupuk Organik Cair Azolla (*Azolla* sp.) dan Pupuk Nitrogen terhadap Produksi dan Mutu Benih Padi (*Oryza sativa* L.). *The Application of Azolla (Azolla sp.) Liquid Organic Fertilizer and Nitrogen Fertilizer for Rice Plant (Oryza sativa L.) Seed Production and Quality.*

Galih Fikri Andika Putra
Program Studi Teknik Produksi Benih
Jurusan Produksi Pertanian

ABSTRACT

There are so many problems that cause decreasing of rice production. One of them is the reducing of rice plant productivity, because of the excessive usage of anorganic fertilizer that can cause the reducing of land productivity. We can repair this land condition with utilising organic materials that can substitute anorganic fertilizer usage, such as Azolla sp. The research was held for 5 months, on August 2015 until December 2015 at Gebang village, Patrang, Jember. The research was conducted by Randomized Block Design (RBD) with 2 factors and 4 replications. The first factor was dose of Azolla liquid organic fertilizer that consisted of 10 and 20 ml/l. The second factor was dose of nitrogen fertilizer that consisted of 300, 225, 150 and 75 Kg/Ha. The result showed that the dose of Azolla liquid organic fertilizer treatment has significant effect on the quantity of paddy saplings at vegetative. Dose of Azolla liquid organic fertilizer 10 ml/l showed the best result of seed production and quality, there are 7.21 ton/Ha, 51.42% for germination capacity, 50.29% for germination equality and 10.66% seed germination speed. Dose of nitrogen fertilizer treatment has very significant effect on plant height and the quantity of paddy saplings at vegetative, also significant effect on the percentage of empty unhulled paddy. Dose of nitrogen fertilizer 300 Kg/Ha showed the best result of production and seed quality. There are 7.37 ton/Ha, 55.21% for germination capacity, 54.67% for germination equality , and 11.61% seed germination speed.

Keywords*: Dose of azolla liquid organic fertilizer, Dose of nitrogen fertilizer, Seed Production and Quality*