

APPLICATIONS BRIQUETTE AZOLLA-HUSK CHARCOAL TO INCREASE EFFICIENCY FERTILIZATION OF CAISIM IN THE SAMAS SAND LAND BANTUL REGENCY

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ABSTRACT

The purpose of research “Applications Briquette Azolla-Husk Charcoal to Increase Efficiency Fertilization of Caisim in the Samas Sand Land Bantul Regency” aim of this study is to get comparison Azolla and husk charcoal and dose Briquette Azolla-Husk Charcoal appropriate to increase efficiency fertilization of Caisim. This research has been conducted in the Experiment land, Faculty of Agriculture, University of Muhammadiyah Yogyakarta and Experiment laboratories in Desember 2015 until April 2016.

The research was conducted using experimental method that arranged in Completely Randomized Design used single factor. Factors that were tested, composition of Azolla-husk charcoal briquettes that consists of 6 levels and dose Azolla-husk charcoal briquettes that consists of three levels, so we get 18 treatments: (A) 0% Azolla: 100% husk charcoal with a dose of 10 tons / hectare; (B) 0% Azolla: 100% husk charcoal with a dose of 20 tons / hectare; (C) 0% Azolla: 100% husk charcoal with a dose of 30 tons / hectare; (D) 10% Azolla: 90% husk charcoal with a dose of 10 tons / hectare; (E) 10% Azolla: 90% husk charcoal with a dose of 20 tons / hectare; (F) 10% Azolla: 90% husk charcoal with a dose of 30 tons / hectare; (G) 20% Azolla: 80% husk charcoal with a dose of 10 tons / hectare; (H) 20% Azolla: 80% husk charcoal with a dose of 20 tons / hectare; (I) 20% Azolla: 80% husk charcoal with a dose of 30 tons / hectare; (J) 30% Azolla: 70% husk charcoal with a dose of 10 tons / hectare; (K) 30% Azolla: 70% husk charcoal with a dose of 20 tons / hectare; (L) 30% Azolla: 70% husk charcoal with a dose of 30 tons / hectare; (M) 40% Azolla: 60% husk charcoal with a dose of 10 tons / hectare; (N) 40% Azolla: 60% husk charcoal with a dose of 20 tons / hectare; (O) 40% Azolla: 60% husk charcoal with a dose of 30 tons / hectare; (P) 50% Azolla: 50% husk charcoal with a dose of 10 tons / hectare; (Q) 50% Azolla: 50% husk charcoal with a dose of 20 tons / hectare; (R) 50% Azolla: 50% husk charcoal with a dose of 30 tons / hectare. Each treatment was repeated five times with four plants and one plant samples as victim plant, so there are 90 experimental units.

The result of this research showed that treatment of Azolla- husk charcoal briquettes do not provide a significantly different effect on the parameters plant height, leaf number, leaf area, root length, plant fresh weight, dry weight of plant leaves, heavy wet leaves of the plant, harvest index, and yield. While the parameters of root wet weight, dry weight of roots, plant dry weight, relative growth rate and net assimilation rate all treatment Azolla- husk charcoal briquettes tested gives a significantly different effect. Applications briquettes Azolla (50%) - the husk charcoal (50%) with a dose of 30 tonnes / hectare caisim tend to give better results.

Keywords: Briquette, Azolla, Charcoal Husk, Caisim, and Sand Land