The Effort for Increase Production of Soybean (Glycine max* L.*) Grobogan Varieties by Combination Between Inorganic and Organic Fertilizer Granule Pistia (Pistia stratiotes* L.*).

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ABSTRACT

This research aims to determine the effect of combination between inorganic and organic fertilizer Pistia granule (Pistia stratiotes L.) for increase production of Soybean (Glycine max L.). This research was conducted in September to December 2018 in research field Tegal Gede, Sumbersari, Jember. This research was using Randomized Complete Block Design with 2 factors and 2 replications. The first factor was application of inorganic fertilizer consisted 4 levels, application inargonic fertilizer 40% of recommendations (A1), 60% of recommendations (A2), 80% of recommendations (A3) and 100% of recommendations (A4). The second factor was application of organic fertilizer Pistia granule consisted 4 levels, 0kg/ha (O1), 500 kg/ha (O2), 750 kg/ha (O3), and 1000 kg/ha (O4). The data result were analyzed by using Analysis of variance (ANOVA) and followed by Duncan's Multiple Range Test (DMRT) 5%. The result of this research shows that application of inorganic fertilizer (A) is non significant effect on parameter height of plant however it is significant on parameter number of pod per sample, weight of pod per sample, weight of pod per plot, weight of seed per sample, weight of seed per plot, weigh of 100 seed per plot, and weight of stover. Whereas, application of organinc fertilizer Pistia granule (O) is significant on parameter number of pod per sample and weight of pod per plot, however it is non significant effect on other parameters. the interaction between between inorganic (A) and organic fertilizer Pistia granule (O) is non significant effect on all parameters.

Key words : *Inorganic Fertilizer, Organic Fertilizer Pistia Granule, Soybean*