THE EFFECT OF ADMINISTRATION OF HUSH ASH AND DOLOMITE ON SOME OF THE CHEMICAL PROPERTIES OF LATOSOL IN GUNUNG KIDUL

By: Dwina Gika Pratiwi Ginting

Supervised by: Miseri Roeslan Afany

ABSTRACT

Latosol is a type of soil that has a low fertility level. Soil fertility is the ability of the soil to produce desired agricultural products in the soil environment. This soil has low fertility and contains a lot of Fe and Al so it is acidic. The addition of husk ash and dolomite is expected to improve the chemical and nutrient properties of latosol. This research aims to determine the effect of using husk ash and dolomite on the chemical properties (pH, Ca, Mg, P, K) of latosol soil. The research method used a Completely Randomized Design (CRD) method with 5 treatments with 3 replications. The first treatment only used control, the second treatment used dolomite at a dose level of 2 grams/pot, the third treatment used dolomite at a level of 6 grams/pot, the fourth treatment used husk ash at a level of 2 grams/pot, the fifth treatment used husk ash at a level of 6 grams/pot. pot. Observation parameters before and after treatment include pH, Ca, Mg, P, and K-available. Data analysis used ANOVA (Analysis of variance) with a real difference test of 5%, to test the differences between treatment means the Duncan Multiple Range Test (DMRT) was used with a real level of 5%. The research results showed that dolomite had a higher influence on the pH of H₂O, Ca and Mg-availability was higher than husk ash, while husk ash increased P and K-availability higher than dolomite.

Keywords: Latosol, soil chemical fertility, dolomite, husk ash.