

ABSTRACT

The research aimed to study the effect of various types and dosages of compost in Segreng Handayani rice variety were inoculated Rhizobacteri indigenous Merapi in sandy soils of beach, also to determine types and dosages of compost that gave the best effect on the growth and yield of Segreng Handayani rice variety were inoculated Rhizobacteri indigenous Merapi in sandy soils beach. This research has been conducted in Agrobiotechnology Laboratory and The Land of Specimen Agriculture Faculty of Universitas Muhamadiyah Yogyakarta from June 2015 up to January 2016 with the watering twice per days.

The research was compiled in single factor experiment with 7 treatments which arranged in Completely Randomized Design (CRD). The treatments tested were A=composted cow manure 30 ton/h, B= composted cow manure 40 ton/h, C= composted chicken manure 30 ton/h, D= composted chicken manure 40 ton/h, E= composted Azolla 20 ton/h, F= composted Azolla 30 ton/h and G=control (without composting or only using Rhizobacteri indigenous Merapi MB+MD isolates). Each treatment was repeated 3 replications, so obtained 21 experiment units. Each unit consisted of 3 sample plants, 3 victim plants and 1 reserve plant so obtained 147 polybags, also 40 polybags of correction plant.

The result showed that the treatment of various types and dosages of compost in Segreng Handayani rice variety were inoculated Rhizobacteri indigenous MB+MD isolates in sandy soils of beach with drought stress there was significant difference all the growth in fifth week, except sum native plant and not significant plant height in eighth week, except plant height and age of flowering. The effect of various types and dosages of compost in Segreng Handayani rice variety were inoculated Rhizobacteri indigenous Merapi in sandy soils of beach with drought stress while without composting or only using Rhizobacteri indigenous Merapi (control) gave grained yield 4.13 ton/h.

Keywords: *Rhizobacteri indigenous Merapi, compost, Segreng Handayani rice variety.*