

ABSTRACT

*The study was conducted to examine the effect organic compost variance and mycorrhiza on green mustard (*Brassica juncea*) used Grumusol soil media. The study was conducted in Green House, Soil Laboratory, Agrobiotechnology and Research Laboratory Faculty of Agriculture, Universitas Muhammadiyah Yogyakarta during period of September until December 2017. This research used factorials experimental method 3 x 2 arranged in Completely Randomized Design (CRD) The first factor is the use of various sources of organic compost and the second factor is mycorrhizal inoculation. The treatments are AP = Palm oil stem compost + without mycorrhizal inoculation; BP = corn straw compost + without mycorrhizal inoculation; CP = goat manure compost + without mycorrhizal inoculation; AQ = Palm oil stem compost + mycorrhizal inoculation; BQ = corn straw compost + mycorrhizal inoculation; CQ = goat manure compost + mycorrhizalinoculation. Each treatments were replicated 3 times with 3 sample plants and 2 casualty plants, so total 90 units of plants. The result showed that combination of corn straw compost and mychorrizal inoculation result the best height 41.17 cm planted on Grumusol soil. The effect of goat manure compost has the shoot dry weight of green mustard 4.49 g and mycorrhizal inoculation gave mycorrhizal spores on Grumusol soil 11.53 spore per gram and the crop productivity tends to be better that is 20.46 ton per hectare.*

Keywords : Organic compost, Mycorrhizal, Green Mustard, Grumusol Soil.