ABSTRACT

The research aims to study the effect of Arbuscular Mycorrhizal Fungi (AMF), organic fertilizer pellets on growth and production of corn in Gunungkidul Yogyakarta. The research was conducted from January up to April 2016.

This research was done using experimental method and arranged in completely randomized block design (RCBD) with 4 treatments. The treatments were: (a) control (NPK fertilizer) (b) AMF + Organic fertilizer pellet (20% cow manure and 70% gliricidia leaves + 10% clay) (c) AMF + Organic fertilizer pellet (45% cow manure and 45% gliricidia leaves + 10% clay (d) AMF + Organic fertilizer pellet (70% cow manure and 20% gliricidia leaves +10% clay).

The result revealed that Arbuscular Mycorrhizal Fungi (AMF) had significantly difference influences to infection roots and number of spora of corn plant. The treatment using AMF + Organic fertilizer pellet (20% cow manure and 70% gliricidia leaves + 10% clay) tends to be better than other treatments.

Key words: *Arbuscular Mycorrhizal Fungi, Dry land, Organic fertilizer pellets Sweet corn (Zea mays saccharata S)*