**Pengaruh Cendawan Mikoriza Arbuskular dan Pupuk SP-36 Terhadap Produksi dan Mutu Benih Kacang Hijau (*Vigna radiata* L.)** *Effects of Arbuscular Mycorrhizal Fungus and SP-36 Fertilizer on the Production and Seed Quality of Mung Bean (Vigna radiata* L.*)* ***Advisor: Ir. Sri Rahayu, MP and Dr.Ir Suharjono, MP.***

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## *ABSTRACT*

*This research was aimed to determine the effect of Arbuscular Mycorrhizal Fungus and appropriate SP-36 fertilizer use to increase production and seed quality of mung beans (Vigna radiata L.). The research was conducted in June-September 2016 in experimental fields and laboratory of Seeds Production Technology Department, State Polytechnic of Jember. Experimental design that applied for this research was Randomized Completel Block Design (RCBD) Factorial which consist of 2 factors. The first factor is the dosage of Arbuscular Mycorrhizal Fungus which consist of without AMF ($C_0$), 10 gram/plant ($C_1$), and 15 gram/plant ($C_2$). The second factor is the dosage of SP-36 Fertilizer which consist of 20kg/ha ($P_1$), 40 kg/ha ($P_2$), and 60 kg/ha ($P_3$). The research result showed that the treatment of Arbuscular Mycorrhizal Fungus significant effect (*) on plant height parameter at the age of 8 Weeks After Planting (WAP), the number of productive branches, age of flowering, and the roots length also gave highly significant effect (**) on the numbers of pods per plant and harvesting age. The treatment of SP-36 Fertilizer had no significant effect (ns) on all parameters that observed. It was found significant (*) interaction between the treatment of Arbuscular Mycorrhizal Fungus and SP-36 fertilizer on germination and simultaneity grow.*

***Keywords**: arbuscular mycorrhizal fungus, SP-36 fertilizer, production and seed quality, mungs beans*