

DINDA NUR RAUFIN. 14.03.1.1.1.00054. Pengaruh Perlakuan Mikoriza Terhadap Pertumbuhan Stek Cabe Jamu (*Piper retrofractum* Vahl.). Dibimbing oleh Dr. Agr. Eko Setiawan, S.P., M.Si.

ABSTRAK

Pertumbuhan bibit tanaman yang berasal dari stek kurang baik karena akar belum tumbuh sempurna sehingga peluang untuk tumbuh sangat rendah. Salah satu cendawan yang dapat membentuk simbiosis mutualisme dengan akar adalah mikoriza. Penelitian ini bertujuan untuk mengkaji pengaruh mikoriza terhadap pertumbuhan stek cabe jamu. Penelitian dilakukan di Kebun Percobaan Agroteknologi Fakultas Pertanian Universitas Trunojoyo Madura pada bulan Januari-Maret 2018. Stek cabe jamu yang digunakan berumur ± 3 tahun dan berasal dari Sumenep. Penelitian menggunakan Rancangan Acak Lengkap (RAL) non faktorial, diulang 8 kali dan dosis mikoriza yaitu 0, 5, dan 10 g/tan sehingga terdapat 24 kombinasi untuk perlakuan. Hasil penelitian menunjukkan pemberian mikoriza berpengaruh sangat nyata pada jumlah tunas, jumlah daun, jumlah ruas, persentase infeksi, jumlah akar primer dan sekunder pada umur 12 MST. Namun pada panjang akar tidak berpengaruh nyata.

Kata kunci: *Piper retrifractum* Vahl, Inokulasi, Fungi Mikoriza

DINDA NUR RAUFIN. 14.03.1.1.1.00054. Effect of Mycorrhiza on Growth of stem cutting of Java Long Pepper (*Piper retrofractum* Vahl.). Supervisor: Dr. Agr. Eko Setiawan, S.P., M.Si.

ABSTRACT

The growth of plant from stem cutting is usually low due to roots have not grown properly and thereby, the low opportunity of the plant to grow. Such problem can be avoided by application of mycorrhizal fungi as the fungi can form mutualistic symbiosis. This research aimed to study effect of Mycorrhizal Fungus infection on growth of java long pepper. This research was carried out on Agrotechnology Research Station, University of Trunojoyo Madura from January to March 2018. This research was arranged on Completely Randomized Design (CRD) consisting of three treatments of mycorrhizal application namely 0 (control), 5, and 10 g/plant. Each treatment was replicated for eight times. The stem cuttings of java long pepper used were from farmer in Sumenep. Data were analyzed by ANOVA and the difference among means was analyzed DMRT at 5%. The result showed that number of buds, leaves, internode, percent infection, and primary roots as well as number of total secondary plant roots at 12 weeks after planting was significantly increased by AMF. However, root length was not significantly increased by application of AMF.

Keywords: *Piper retrofractum* Vahl., Inoculation, Mycorrhizal Fungi, Stem Cutting