

Seedling Growth and Mineral Uptake of *Eucalyptus pellita* with Different Mycorrhizal Inoculants in Central Kalimantan, Indonesia

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This study was conducted to examine the response of *Eucalyptus pellita* cuttings to different mycorrhizal inoculants from the Philippines as compared with ectomycorrhizal fungi collected under *E. pellita* plantations in Kalimantan, Indonesia. Shoot tips (2-3 inches) of eucalypts were collected from the seedlings orchard, dipped in rooting hormone, inserted in rooting materials and then incubated under mist system. After 2 wk, the rooted cuttings were transferred into containers filled with soil. During seedling transfer to individual container, they were inoculated with the following mycorrhizal inoculants: KTH (contains spores of *Scleroderma* and *Pisolithus* sp. native in Kalimantan, Indonesia), MYKOVAM[®], MYKORICH[®], MYKOCAP[®], MYCOGROE[™], MYCOGROE[™]+MYKORICH[®] and MYKORICH[®]+MYKOCAP[®] from the Philippines following the recommended dosages as stated in the label. Results showed that Mykocap[®] and MYCOGROE[™]+MYKORICH[®] inoculated plants were 51 and 49%, respectively, taller than the control (8.86 cm). In terms of mineral components, highest total plant N, K, Mg, Fe, and Mn uptakes were observed in plants inoculated with MYCOGROE[™]+MYKORICH[®]. MYKORICH[®] alone gave the highest percent increase in total plant uptakes of B (86%), Cu (76%) and Zn (104%). The results clearly showed that growth and mineral composition of *E. pellita* were greatly improved by inoculation with mycorrhizal fungi particularly by MYCOGROE[™]+MYKORICH[®], which is a combination of ectomycorrhiza and arbuscular mycorrhizal fungi.

Keywords: arbuscular mycorrhizal fungi, ectomycorrhizal fungi, mineral elements