

**INVESTIGATING THE ASSOCIATION OF VESICULAR
ARBUSCULAR MYCORRHIZA (VAM) WITH
Commelina benghaensis WEED SPECIES IN TEA LANDS**

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ABSTRACT

A study was conducted to investigate an association between Vesicular Arbuscular Mycorrhiza (VAM) and *Commelina benghalensis*, which is an aggressive weed infesting tea cultivations. A field experiment was carried out at a Wewessa estate, Badulla consisted of 4 treatments, *i.e.* tea alone (weed free), tea infested with *C. benghalensis* slashed at 3 and 6 weeks interval and no weeding for 3 months. Soil Phosphorus was analyzed and tea yield was measured. VAM spore count and root colonization percentage were calculated three months after imposition of treatments. Slashed dry weights of *C. benghalensis* were measured. There were significant differences in root colonization percentage and spore counts between treatments. A higher level of P was recorded with *Commelina* when slashed at 3 weeks interval compared to weed free and no weeding treatments for 3 months. There is no any significant difference in tea yield between treatments. The study concluded that there is close association between VAM and *C. benghalensis* thereby availability of soil Phosphorus. This association has favorably affected on tea growth.

Keywords: *Commelina benghalensis*, Root colonization, Vesicular Arbuscular Mycorrhiza (VAM), VAM spores