

## Growth Enhancement of *Aglaonema maria* using Compost Fortified with Beneficial Fungi

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*Aglaonema maria*, or "Chinese Evergreen," is an ornamental foliage plant that has high demand in the export market. The unavailability of a suitable growing medium for large-scale production is a limitation. A net house experiment was conducted to assess the effectiveness of adding two types of compost fortified with selected fungal strains to the existing growth medium at Mike Flora (Pvt.) Ltd., Rambukkana. Four treatments: non-fortified control (T1), non-fortified compost (T2), *Trichoderma harzianum* fortified compost (T3), and compost fortified with a combination of three fungal strains (T4) were arranged in a completely randomized design. The treatments were added to plant stocks that had one-month-old healthy plants, and one-year-old and two-year-old plants with retarded growth. The number of replicates for each treatment was ten. Plant height and number of leaves per plant were recorded at monthly intervals for two and half months in 40 representative plants from each plant stock. Both one-month-old and one-year-old plants showed the highest mean increase in plant height: 33.5 cm and 25.8 cm, respectively. No significant growth enhancement was observed in two-year-old plants. Two-year-old plants in *T. harzianum* fortified compost showed the highest increase in leaf number due to releasing significantly higher K (404.6 mg kg<sup>-1</sup>), P (1383 mg kg<sup>-1</sup>), NO<sub>3</sub><sup>-</sup> (330.1 mg kg<sup>-1</sup>), and NH<sub>4</sub><sup>+</sup> (1097 mg kg<sup>-1</sup>) by *T. harzianum* over 30 days period. This study provided evidence that the compost fortified with *T. harzianum* could increase the growth of *Aglaonema maria* by providing nutrients over non-inoculated compost and has the potential of being used at a commercial scale.

**Keywords:** *Aglaonema maria*, Compost, Growth enhancement, Nutrients, *Trichoderma harzianum*,

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