911/B/Poster

Effect of potting media on germination and growth performance of seedlings of *Pterocarpus marsupium* (Gammalu)

N M K K Nawarathna[1*] and H M N M Watagodakumbura[2]

[1]*Advanced Technological Institute, MainStreet, Sammanthurai*
[2]*Hardy Advanced Technological Institute, Prof. Evan A. Hardy Mawatha, Ampara*

Pterocarpus marsupium belonging to family *Leguminosae* is naturally grown in lowcountry and upcountry in the "Pathana" areas in Sri Lanka. It is mainly found in the Monaragala District up to an elevation of 3000 feet and is a valuable medicinal plant. There are other *Pterocarpus* species found in the world having medicinal value and *P. podocarpus*, *P. officinalis*, *P. santalinus* and *P. indicus* are some of them. Poor germination and growth performance of the seedlings of *P. marsupium* are the main obstacles in the propagation of this plant.

An experiment was conducted to evaluate the performances of seed germination and seedling growth of *P. marsupium* in different potting media. The potting media used in the experiment were mixtures of different ratios of sand (S), soil (SO), cattle manure (C), poultry manure (P), and vermi compost (V). The ratios of the potting mixtures were S+SO+V (T1) 1:1:1 (T2) 1:2:1 (T3) 1:1:2 (T4) 2:1:1, S+SO+C (T5) 1:1:1 (T6) 1:2:1 (T7) 1:1:2 (T8) 2:1:1, S+SO+P (T9) 1:1:1 (T10) 1:2:1 (T11) 1:1:2 (T12) 2:1:1, (S+SO)+V+C (T13) 1:1:1 (T14) 1:2:1 (T15) 1:1:2 (T16) 2:1:1, (S+SO)+V+C (T17) 1:1:1 (T18) 1:2:1 (T19) 1:1:2 (T20) 2:1:1, (S+SO)+C+P (T21) 1:1:1 (T22) 1:2:1 (T23) 1:1:2 (T24) 2:1:1 and (S+SO)+(C+P)+V (T25) 1:1:1 (T26) 1:2:1 (T27) 1:1:2 (T28) 2:1:1.

The design of the experiment was RCBD with 03 replicates. The rate of emergence, germination index and survival percentages were the indicators estimated to evaluate the germination and growth performances of seedlings. The effect of treatments was significant at $\alpha = .05$ in Chi Square test. Sand+Soil+Cattle Manure (1:1:2) mixture had a germination Index of 7.6, survival percentage of 96% and rate of emergence of 49.85%. Sand+Soil+Cattle manure (1:1:2) mixture was highly significant than other treatments in relation to germination index, rate of emergence and in survival percentage in the least significant difference (LSD) test. Among the potting mixtures tested, the potting mixture containing Sand+Soil+Cattlemanure (1:1:2) was found to be the most suitable potting mixture which enhanced the germination and seedling growth of *Pterocarpus marsupium.*

keerthinawarathna@yahoo.com Tel: +94 711786532/ +94 672261304