

Influence of Propagation Media on the Growth and Development of Blue Butterfly Pea (*Clitoria ternatea* L.)

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Clitoria ternatea L., commonly known as blue butterfly pea, a medicinal plant serves as rich source of antioxidants, flavonoids and peptide that use to cure many ailments. However, a suitable propagation media has not been developed for promoting the cultivation. Hence, this study was carried out at the Royal Botanic Gardens, Peradeniya, to explore the effective growing media on seed germination and subsequent plant growth. Four different types of growing media including sand: leaf manure (1:1) (T1), sand:leaf manure:top soil (1:1:1) (T2), sand:leaf manure:cow dung (2:2:1) (T3) and sand: leaf manure:cocopeat (2:2:1) (T4) were used and the experiment was arranged in Completely Randomized Design (CRD) with eight replicates under shade net house conditions. The results indicated that potting media had significantly effected on seed germination percentage and subsequent plant growth ($P < 0.05$). The highest germination percentage was observed in T2 (sand: leaf manure: top soil (1:1:1)) media (72.5 %), conversely, T3 (sand: leaf manure: cow dung (2:2:1)) had the lowest (40 %). This might indicate that the former media have the capacity to provide idealized ratios of moisture, intrinsic gas transfer properties than latter media. Moreover, T4 (sand: leaf manure: cocopeat (2:2:1)) media denoted the vigorous plant growth and highest plant height at 3rd week after germination (10.9 cm). This might due to supplying of balanced plant nutrients than the other counterparts. Therefore, based on the overall performances, T2 (sand: leaf manure: top soil (1:1:1)) media can be recommended for seedling germination while transferring seedlings to T4 (sand: leaf manure: cocopeat (2:2:1)) will ensure subsequent plant growth and development.

Keywords: Blue butterfly pea, Germination percentage, plant growth, potting media.