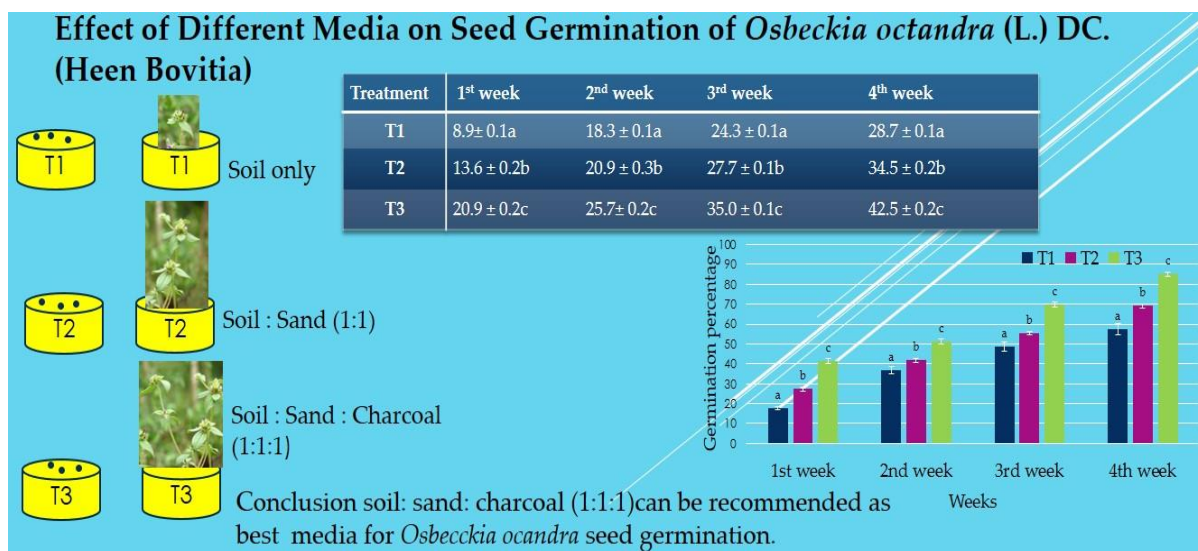


## Effect of different media on seed germination of *Osbeckia octandra* (L.) DC. (Heen Bovitia)

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Heen Bovitiya (*Osbeckia octandra* (L.) DC.), an endemic plant to Sri Lanka, has a great potential for commercial exploitation as an ornamental flowering herb. *O. octandra* is propagated mainly through seeds and rarely by vegetative propagation technique. However, the seeds are very small and characterized by poor germination rates. Hence, it is vital to develop a mass propagation protocol for the production of the required amount of planting materials for the commercial level. Therefore, this experiment was carried out to see the effects of different media on the seed germination percentage at the plant nurseries of Seethawaka botanic garden located in the wet zone of Sri Lanka from January to March of 2021. Potting media were; sand (T1), sand: soil at 1:1 (T2) and soil: sand: charcoal 1:1:1 (T3) were tested in a complete randomized design with thirty replicates of each treatment. Each replicate consisted with a plastic pot (d=10" and h=4") filled with corresponding germination media, then sown with 50 seeds per pot then were maintained under 60 % shade net house conditions. Then seedling emergences were counted on weekly basis to estimate seed germination percentages. The results indicated that germination percentage was significantly ( $p < 0.05$ ) affected by the media. On the 1<sup>st</sup> week, the number of seedlings emerged per pot were lower viz; T1 (9), T2 (14) and in T3 (21) respectively. However, towards the 4<sup>th</sup> week, seedling numbers increased and produced 29 (T1), 35 (T2) and 43 (T3) respectively ( $P < 0.05$ ). On the contrary, germination percentage were calculated in the corresponding weeks, revealed that the significantly higher germination percentage (85.1 ± 0.4) was showed in T3, while the lowest percentage were denoted in the T2 (70.0 ± 0.3) and T1 (41.9 ± 0.5) suggesting that the potting medium of soil + sand + charcoal in 1:1:1 ratio is recommended as the seed germination medium of *O. octandra*.

**Keywords:** media, seeds, *Osbeckia octandra* (L.), seedlings