

INFLUENCE OF STORAGE MEDIA AND CONTAINERS ON SEED GERMINATION AND SEEDLING QUALITY IN *GARCINIA GUMMI-GUTTA* L.

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Abstract: A laboratory study was undertaken at Department of Forest Biology and Tree Improvement, College of Forestry, Sirsi, University of Agriculture Sciences, Dharwad during 2016-17 to find out the suitable media and containers for storage of *Garcinia gummi-gutta* seeds. Uniform sized and healthy seeds were stored in different medium and containers under ambient temperatures at laboratory using completely randomized design. Seed without any medium was treated as control. In treatment T₂ dried seeds were mixed with ash at the rate of 1:2 ratios. One kg of dried seed packed in the perforated gunny bag was considered as treatment (T₃). In treatment T₄ and T₅ dried seeds were mixed with sawdust and sand at the rate of 1:2 ratios respectively. One kg of dried seed packed in the pet jar was T₆ treatment. At interval of every 30 days, 100 seeds from each treatment in four replications were taken up from stored seed lot till six months of storage for germination studies. Seeds were sown at monthly interval up to six months. During six months of storage, the fresh seeds recorded maximum germination (18.75 per cent) and decline in germination was noticed with advancement in the storage period. Among the storage media and container, seed stored in pet jar recorded maximum germination per cent (14.50 per cent, 11.50 per cent, 9 per cent and 4.75 per cent) in third, fourth, fifth and sixth months of storage respectively. Germination per cent in control is negligible after 3 months of storage. Maximum mean daily germination and peak value was in seed stored in pet jar and the lowest in control and sand media at end of six months of storage. The mean daily seed germination, peak value and germination value were exhibiting the negative trend as advancement in seed storage period. The seedling length was non-significantly influenced by all storage media in first and third months of storage. Higher seedling length (11.70 cm, 12.98 cm) was recorded in pet jar at fourth and fifth months of storage respectively. Seedling vigour index was non-significant at first month of storage of seed at different medium. At the end of second month of storage, the maximum seedling vigour index (194) was recorded in saw dust.

Keywords: Pet jar, Saw dust, Sand germination, Vigour

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