

EFFECTS OF SOME SEED COAT AND LITTER LAYER
TREATMENTS ON GERMINATION OF
FOUR LEGUMINOUS TREE SPECIES

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Tree legumes have many potential advantages in forestry. However, use of these species on a large scale is limited, because technical information, especially on regeneration, is lacking.

An experiment was conducted using seeds of four tree legumes; Adenantha pavonina L. (Madatiya), Pterocarpus marsupium Roxb. (Gammalu), Cassia nodosa Buch-Ham. (Pink Cassia) and Delonix regia Raf. (Mal-mara).

The effects of different seed coat treatments on seed germination using acid, mechanical scarification and hot water were studied. Concentrated sulphuric acid (98%) treatment and sand paper scarification produced significantly high germination rates in both A. pavonina and C. nodosa. In P. marsupium, clipping of seed coat gave the highest germination rates. Seed germination of D. regia did not improve with any of the treatments.

The effects of litter of Pinus caribaea on seed germination, was also examined by placing seeds on and under the litter layers. The litter layer (1 kg m⁻²) placed on the seeds did not interfere with seedling emergence in both A. pavonina C. nodosa. But in A. pavonina, the litter layer acted as a physical barrier to emergence and thus impeding germination.