

**Title:** Effect of Different Pre-Sowing Treatments on Seed Germination of *Diospyros ebenum* Koenig

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**Abstract:** *Diospyros ebenum* Koenig is one of canopy dominant species commonly called as Ceylon ebony and heavily extracted and threaten border line by anthropogenic activity in the dry zone forests in Sri Lanka, has led to the decrease in their population densities in the wild. Hence, conservation of the species is vital due its delayed germination and unprotected seedlings during its vegetative and reproductive periods. Mature fruits were randomly collected from trees and seeds were extracted from the fruits for assessment of microscopic, morphological and germination tests in the laboratory. Study was carried out at the Department of Agronomy, Faculty of Agriculture, University of Jaffna, Sri Lanka. The study aims to improve germination with the application of pre sowing seed treatments such as different levels of H<sub>2</sub>SO<sub>4</sub>, KCl, hot water and distilled water in addition to control and morphological studies of seeds, fruits and seedlings. Experiment was conducted using a completely randomized design (CRD) with three replicates for germination test. Mean value of thickness, diameter and length of seeds were 0.64±0.02 cm, 1.19±0.02 cm and 0.79±0.02 cm, respectively. All the seed treatments were effective on germination percentage except distilled water soaked with 12 hours and highest value recorded as 63 %. Rate of root growth was high in seedling than the stem. Seedling had attained the mean height of 2.73 cm, 4.31 cm, 7.75 cm and 10.11 cm tall at 20, 30, 60 and 120 days, respectively after germination.

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