

**Seed traits and germination behaviour of kemunting (*Rhodomyrtus tomentosa*)  
populations as affected by different temperatures**

ABSTRACT

To examine the variation in seed morphometric traits as well as germination performance at a range of temperatures (10-40°C), *Rhodomyrtus tomentosa* seeds were collected from four locations across Peninsular Malaysia (designated (C-02), (K-03), (M-01) and (T-01)). Seed source had a significant effect on seed morphometric traits with seeds from K-03 recording the highest values and seeds from C-02 the lowest values for seed length, seed width, seed thickness and 1000 seed weight. These differences in seed traits, which were attributed to maternal or environmental effects, influenced the rate of water uptake leading to variation in germination behaviour such as germination percentage (GP), days to first germination (GD) and time to 50% germination (T50) of the seeds from the four locations. Temperature significantly affected GP, GD and T50 but the effect of location was only significant for GD and T50. There were significant interaction effects of location × temperature for all the parameters tested. Generally, *R. tomentosa* seeds showed a slow increase in water uptake due to the presence of the operculum and the mesotesta which consists of sclerified cells, and had erratic germination behaviour.

**Keyword:** Kemunting; *Rhodomyrtus tomentosa* seeds; Seeds