

**EFFECT OF DIFFERENT SHADING ON *Shorea leprosula* SEEDLINGS AND
SAPLINGS, AND MORPHO-PHENOLOGICAL CHARACTERISTICS OF
MOTHER TREES AT SANDAKAN, SABAH**

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ABSTRACT

This study reports the effect of different shading on *Shorea leprosula* seedlings and saplings and the morpho-phenological characteristics of mother trees at Sandakan, Sabah. For seedlings, there is a significant difference of light shading on leaf area in the final data collection ($p < 0.05$), leaf numbers ($p < 0.001$) and estimate leaf coverage ($p < 0.001$). For saplings, there is a significant difference of light shading on leaf area in final data collection ($p < 0.001$), on leaf numbers ($p < 0.001$) and estimation of leaf coverage ($p < 0.001$). For seedlings, 50% shading had the highest mean for leaf area reading (3188.800 mm²), leaf numbers (16.93) and estimation of leaf coverage (55756.80 mm²). For saplings, 70% shading had the highest mean leaf area reading (4362.07 mm²), leaf numbers (26.00) and estimation of leaf coverage (128428.93 mm²). The correlation test showed that leaf area was negatively correlated with height (-0.256, $p = 0.090$) but positively correlated with DBH (0.146, $p = 0.339$). Meanwhile, mean leaf numbers positively correlated with height (0.062, $p = 0.062$) but negatively correlated with DBH (-0.522, $p = 0.00024$) in seedlings. For saplings, mean leaf area negatively correlated with height (-0.138, $p = 0.365$) but positively correlated with DBH (0.100, $p = 0.513$). Meanwhile, leaf numbers negatively correlated with height (-0.182, $p = 0.230$) and DBH (-0.078, $p = 0.007$). All mother trees had the same morphological and phenological characteristics.