

Calorific value of leaves of selected dipterocarp trees species in Piah Forest Reserve, Perak

ABSTRACT

Information on calorific value is very important factor in fuel evaluation. The objective of the study was to investigate the calorific values of the leaves of five (5) selected trees species of dipterocarp in Piah Forest Reserve, Perak, Malaysia. The species are *Hopea* sp., *Shorea parvifolia*, *Shorea leprosula*, *Shorea macroptera* and *Dipterocarpus* sp. The calorific values were determined using the Adiabatic Bomb Calorimeter. The difference of calorific value between the five species were also examined. It was found that, the mean calorific value for the dipterocarp species were within the range of 4041.28 Cal g⁻¹ to 4820.78 Cal g⁻¹. The leaves of the *Shorea macroptera* contain higher calorific value compared to other four species. The findings will be useful in the preparation of forest fire management plan, and also in the development of bioenergy project of wood-based biomass from forest species.

Keyword: Calorific value; Fuels; Forest fire