

Title Leaf Epidermal Anatomy of Plants Used for Forest Restoration

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ABSTRACT

Leaf epidermal anatomy of eight plant species used for forest restoration, including *Gmelina arborea* Roxb., *Holoptelea intergrifolia* (Roxb.) Planch., *Artocarpus lacucha* Roxb. ex Buch.-Ham., *Choerospondias axillaris*, *Elaeocarpus lanceifolius* Roxb., *Azadirachta excelsa* (Jack) Jacobs, *Diospyros glandulosa* Lace, and *Cinnamomum iners* Reinw. Ex Blume. were studied. Leaf samples (5 leaves per species) were collected and bleached until the leaves transparent. Then, sections were stained with 0.05% Safranin O. Leaf epidermal structure was observed under compound microscope. From the study found that shape of epidermal cells were jigsaw and irregular. The stomata were mostly found on the lower epidermis, except *Choerospondias axillaris* that stomata were found on both upper and lower epidermis. Three types of stomata were found, including anomocytic, anisocytic, and paracytic. In addition, trichome was found mostly on the lower epidermis. Results from stomatal length measurement and stomatal index calculation found that *Gmelina arborea* had the highest stomatal index (16.3%), and *Artocarpus lacucha* had the largest stomatal length (279 μM).