

Thesis Title	Studies on Anatomy of Stomata of Some Plants Within and Outside the Traffic Areas
Student	Suphan Posri
Student ID	40064201
Degree	Master of Science
Programme	Science Education
Year	2000
Thesis Advisor	Assoc. Prof. Dr. Pannee Dhitaphichit
Thesis Co-Advisor	Asst. Prof. Hattaya Chiowattakee Assoc. Prof. Dr. Ravewan Shinatrakool

ABSTRACT

The purpose of this research was to study the characteristics, the sizes and the number of stomata of some plants planted within and outside the traffic areas. The 18 species of plants were Lignum Vitae, Ixora, Rain Tree, Pink Trumpet, Rose Mallow, Ebony, Queen's Flower, Golden Leaves, Yellow Flame, Angsana, Bullet Wood, Paper Flower, Dominican Mahogany, Tamarind, Manila Tamarind, Star Gooseberry, Lettuce Tree and Indian Almond.

The results of the studies were as follows. For sizes of stomata, 13 species of the plants (Ixora, Rain Tree, Rose Mallow, Ebony, Queen's Flower, Golden Leaves, Angsana, Paper Flower, Dominican Mahogany, Tamarind, Star Gooseberry, Lettuce Tree and Indian Almond) were statistically different (at the level of 0.05) for the same species of plants planted within and outside the traffic areas. For numbers of stomata, 13 species (Rain Tree, Pink Trumpet, Rose Mallow, Ebony, Golden Leves, Yellow Flame, Angsana, Bullet Wood, Paper flower, Tamarind, Manila Tamarind, Star Gooseberry and Lettuce Tree) were statistically different for the same species of plants planted within and outside the traffic areas. Four types (characteristics) of stomata were found (anomocytic , anisocytic , paracytic and cyclocytic) and there was no difference for types of stomata in the same species of plants planted within and outside the traffic areas. Among the plants studied, 11 species (Lignum Vitae, Ixora, Pink Trumpet, Ebony, Queen's Flower, Golden Leaves, Yellow Flame, Bullet Wood, Paper Flower, Dominican Mahogany and Indian Almond) had anomocytic stmata, 5 species (Rain Tree, Angsana, Tamarind, Manila Tamarind and Star Gooseberry) had paracytic stomata, while Rose Mallow and Lettuce Tree had

anisocytic and cyclocytic stomata, respectively. Finally, for plants which were statistically different in both sizes and numbers of stomata in the same species planted within and outside the traffic areas, 9 species (Rain Tree, Rose Mallow, Ebony, Golden Leaves, Angsana, Paper Flower, Tamarind, Star Gooseberry and Lettuce Tree) were found.