

RESEARCH RESULTS ON TECHNIQUES OF PROPAGATION BY SEEDS OF *Dialium cochinchinensis* Pierre IN THUA THIEN - HUE PROVINCE, VIETNAM

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Summary

Dialium cochinchinensis Pierre, common name: velvet tamarind, is an indigenous species of high economic and conservation values. Unfortunately, logging and fruit harvesting have endangered velvet tamarind populations in the wild, which now require protection and rehabilitation. Research into physical, reproductive, and developmental traits of the velvet tamarind, as well as into methods to care for saplings in nurseries helps inform reforestation efforts surrounding this species in Vietnam. Findings reveal that the optimal period for seed harvesting is between July and September—seeds can be extracted from picked fruits then saved for up to over 3 years via drying. Velvet tamarind fruits are oval-shaped, 1.9 cm in median length and 1.4 cm in median width; each fruit contains 1.08 seeds on average. Seeds are oblong, 1.1 cm in median length and 0.9 cm in median width, weighing 1 kg per 3,001 seeds with a purity of 96.4%. With proper soaking seeds into 80°C hot water, a germination rate within 32 days of up to 92.7% can be achieved. Seed-starting containers of size 9x13 cm—containing 83-84% surface soil, 15% manure, and 1-2% NPK fertilizer—are used. Under suitable growing conditions—including proper levels of sunlight with 100% in the first period and reduce to 25% after 9 months, watering 4 lit/m², and fertilizing with NPK at 30 g/m² up to 50 g/m²—12-month old seedlings reach an average height of 51 cm, and trunks measuring 0.5 cm in diameter. Selection criteria for trees from 12 to 18 months old consist of a minimum height of 50 cm, minimum trunk diameter of 0.5 cm, and good health without dead plumules or pests.

Keywords: *Dialium cochinchinensis* Pierre, *Techniques of propagation by seeds, Thua Thien - Hue province, Vietnam.*