

Volume 1

ACACIA WOOD

CULTIVATION, HARVESTING & PROCESSING



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CHAPTER 2

NURSERY TECHNIQUES AND CULTIVATION

Nasihah Mokhtar & Norashikin Fauzi

Genetic resources

CSIRO (Australia) has collected seeds from various *Acacia* species in Indonesia (Moluccas, Irian Jaya), Papua New Guinea, and northern Queensland. The natural stands are approachable, yet they are not in danger of being cut down. Furthermore, numerous species are planted in huge quantities.

Breeding

A significant worldwide provenance trial for *A. mangium* has been set up, with 24 provenances examined in 19 locations. Provenances from Papua New Guinea consistently show greater height and diameter growth and superior stem morphology. Other species have had provenance trials set up in most of Southeast Asia, with preliminary results available. Outcrossing rates for *A. mearnsii* and *A. auriculiformis* are estimated to be between 67% and 93%. *A. mangium* has a higher proclivity for selfing. Natural hybrids of *A. auriculiformis* and *A. leptocarpa* and *A. mangium* and *A. auriculiformis* have been discovered (8% hybrids in an *A. mangium* research plot in Peninsular Malaysia). The later hybrid's tree