

Reforestation in the Tropics and Subtropics of Australia: Using Rainforest Tree Species

*A report for the RIRDC/Land & Water Australia/FWPRDC/MDBC
Joint Venture Agroforestry Program, together with the Rainforest Cooperative Research Centre*



In the late 1980's nearly all of the state-controlled subtropical and tropical rainforests in New South Wales and Queensland were placed on the World Heritage register and timber extraction from these forests ceased. Although there had been attempts to grow rainforest trees in plantations in the early 1900's the silviculture and management requirements of most tropical and subtropical Australian rainforest trees, apart from *Araucaria cunninghamii* (hoop pine), were relatively unknown. With the loss of the natural forest timber resource there appeared to be an opportunity for growing rainforest trees in farm forestry systems to supply high-value wood and restore diversity to cleared rainforest landscapes. In north Queensland a great deal of support for this was provided by the Community Rainforest Reforestation Program (CRRP), while a variety of landholders and organisations throughout the tropics and subtropics also reforested land for production, biodiversity and/or other conservation reasons. The reforestation has been an opportunity for novel and integrative research by a range of organisations, in particular the Rainforest CRC since 1993. Several international workshops (e.g. IUFRO, IUCN) have also been held with a focus on this research.

A technical workshop was convened in June 2003 to review what we have learned in the past ten or so years of reforesting with rainforest and tropical species. The workshop was attended by many of those who have been involved in the reforestation effort in both Queensland and northern New South Wales. This peer-reviewed book documents the lessons learned as a result of their experiences. It covers some of the history of rainforest reforestation and planting schemes, and the methods that have been used to propagate and establish rainforest tree species. It also presents growth rates for a wide variety of species planted in different regions, knowledge about the pests and diseases found in rainforest plantations and discusses the management challenges of mixed species stands. As the planting of rainforest trees has occurred in some of the most biodiverse regions of Australia the book also examines some of the ecological consequences of plantation design and the emerging issues facing forest growers who desire production and biodiversity. A portion of the book also evaluates some of the socio-economic issues which arose from reforestation schemes. Finally the book offers future directions for rainforest plantation research and insights into how our Australian experience can be applied more widely throughout the altered rainforest landscapes of the tropical world.

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This book, a new addition to RIRDC's diverse range of over 1200 research publications, forms part of our Agroforestry and Farm Forestry R&D program, which aims to integrate sustainable and productive agroforestry within Australian farming systems. Most of the RIRDC publications are available for viewing, downloading or purchasing online through the RIRDC web site:

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