



Direct seeding technology

Amount: \$30,746 (2015 rate) tax free scholarship with possible 6 month extension plus project operational funds

Location: Hobart, Tasmania

Eligibility: Domestic and International students with First Class or Second Uppers Honours/ Masters or equivalent

Submission dates for applications are listed on <http://www.utas.edu.au/arc-forest-value/phd-project-opportunities>

About the Centre

This research project is part of the ARC Centre for Forest Value. The Training Centre will build the capacity to shift the forestry and wood products sector from a traditional, resource driven, low-technology base to a market-driven, precision-manufacturing focused industry that applies modern technologies and business approaches to the value chain from germplasm to commercial buildings, and from production to restoration plantings.

Learn more at www.utas.edu.au/arc-forest-value



Project Overview

This project will provide a genetic, ecological and silvicultural framework to guide establishment and integration of environmental plantings within multi-use production landscapes. It will be embedded in an active program of forest restoration being undertaken by Greening Australia and exploit a unique infrastructure of long-term restoration trials established in Tasmania under two ARC Linkage grants. It will address research on:

1. Establishment and management of environmental plantings, including issues of plant production, site selection and preparation, species and provenance choice, plant establishment (including direct seeding), management of plantings (including drought, frost, browsing and disease risk, and weed control)
2. Monitoring the biodiversity impacts and use of tree plantings
3. Management of offsite effects (e.g. wildling spread and pollen flow) of tree plantings

Specific Project

The technology is well developed for planting trees to restore degraded landscapes (modified from commercial plantation forestry). However this is an expensive option (costs at least \$2,500/ha). Direct seeding technology is low cost and has been very successful in some environments, even those with very low rainfall (e.g. 300mm annually). In Tasmania results in dry landscapes (400 to 600mm annually) have been very mixed, and the lack of success has been attributed to the predominance of light rainfall events, drying winds, low temperatures (and consequently slow growth rates) and intense weed competition. Potentially there are many ways of improving success through: seed priming, irrigation, insect control, wetting agents, pelletising, better weed control etc. What do we do to improve the success of direct seeding?

The ARC Industrial Transformation Training Centre for Forest Value is supported from the Australian Research Council's Industrial Transformation Training Centres scheme (project number IC150100004).

To submit an expression of interest or for general information, please contact the Centre for Forest Value at forest.value@utas.edu.au
For information related to this project please contact Professor Brad Potts Brad.Potts@utas.edu.au or Professor Mark Hunt Mark.Hunt@utas.edu.au for more information.

Partner Organisations

