Landcare-led Landscape Resilience Tools and data for restoration decisions

Tools and data for restoration declisions Improved biodiversity under failed farm forestry

OBJECTIVES

Farm forestry took off in the late 80's and through the 90's as a way of addressing timber shortages and income diversification for land holders. These plantings are now maturing and most often farmers have no real drive to harvest them. The objective here is to expand upon the Biodiversity Regen cells to encompass a failed Red Box forestry planting, situated in the middle of a massive forestry planting

WHAT IS SUCCESS?

Using minimal input techniques like:

Hand angering Hand seeding Mulching Mosaic Burns

Will implant a diverse shrub and ground cover layer under the failed Red Box planting with the intent that established future recruitment of improved biodiversity will occur across the entire site.



Using small scale low temperature mosaic burns to reduce leaf litter to aid germination of seed in Narrandera.



Failed Red Box Farm forestry site

KEY STEPS

- Species selection vegetation surveys of the site and species-lists from previous plantings were compared against Plant Community Types (PCT's). The goal was to select species which should be there and were not present or previously been reintroduced.
- Ground prep how do we manage this in a previously established site
 - Small mosaic burns to clear the leaf litter for seeding
 - Hand Angering for tube stock.
 - Introduction of mulch for nearby roadside
- Long term monitoring of establishment and recruitment throng out the entirety of the Farm forestry Plots.

NOTES ON SPECIES SELECTION

It was noted on our first visit to Lindoris, when Adrian made comment around previous projects and species selection, that;

- 1. Shrubs generally only live for a few years and die off quickly.
- 2.Farm forestry species were often not endemic species

We couldn't do anything about the species selection of farm forestry, however most shrub species historically used in revegetation have been those coloniser species which live fast & die young and are generally easy to propagate. With the creation of the new Gap creek sub catchment revegetation profile we were able to identify longer lived shrubs for planting endemic to Lindoris.

Colonising plant species play a crucial role in environmental repair

WHAT IS A COLONISER SPECIECS

Colonising plant species play a crucial role in revegetation efforts across Australia. These hardy plants are often the first to establish themselves after environmental disturbances, such as bushfires or floods. They typically belong to families like Poaceae (grasses), Acacia (wattles), and Fabaceae (peas). Colonisers are characterised by their ability to quickly germinate, grow rapidly, and produce abundant seeds. In revegetation projects, these species are valuable for their high survivorship rates and capacity to kickstart ecological succession. By utilising colonising species in the initial stages of revegetation, practitioners can improve the longterm success of ecological restoration efforts.



Previous biodiversity planting on the property with shrubs but no ground layer

RESOURCES

- Revegetation: There are ample resources available if you are not working in an area covered by a revegetation guide to start looking. The first point of contact should be your local Landcare or Natural Resource Management. Otherwise here are some links.
- Southwest Slopes and Riverina Revegetation Guides <u>www.revegetation.org.au</u>
- Trees near me ap https://www.treesnearme.app/explore
- Landcare NSW https://landcarensw.org.au/





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