

Landcare-led Landscape Resilience

Tools and data for restoration decisions

Micro scalping to introduce ground cover species

OBJECTIVES

Inspired by Paul Gibson Roy's scalping for grass land restoration, the plan was to build small islands of ground cover species throughout the 16 Ha site, by removing the topsoil in Micro Scalp Trials. Scalping removes topsoil with its increased nutrient and weed seed burdens allowing for better establishment of native grasses and forbs.

WHAT IS SUCCESS?

Minimal input reintroduction of ground layer.
Established patches of native grasses and forbs which are no longer found across the site.
Active management of nonnative ground cover outside of the micro scalps will start to see recruitment from new seed banks.
Improved Biodiversity through the addition of all three strata layers into the revegetation/regeneration site



Mini excavator to scalping topsoil patches across the 16Ha site



Photo of Scalped Themeda plot at Wirraminna Educational center in Burrumbuttock. Photo take after a cool burn note large and small tussocks signs of establishment and recruitment

KEY STEPS

- Species selection is fundamental to successful revegetation projects. The site was found to have little to no evidence of native ground cover species. Lists were derived from PCT data and localised veg surveys.
- A number of 5m x 5m plots were scalped across the site, these were chosen with ease of access for ongoing maintenance in mind. The topsoil removed was taken away from these plots to minimise recontamination of the plots and a buffer sprayed.
- Due to the low species diversity commercially available for planting a combination of techniques were decided on
 - Tube Stock planting.
 - Hand seeding.
 - Application of ground cover mulch.
- On going maintenance of these micro scalps is critical to ensure they are not overrun with nonnative weed species.
- Once established these sites will act as seed banks for the site. It is hoped that the seed will naturally start to recruit throughout the site or at worst provide a seed production for manual spreading.
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KEY LEARNINGS FROM EXPERIENCE

Diversity is key in ground layer reintroduction; but where to start as ground cover species are not as readily available for planting. Revegetation guides and resources like trees near me are great starting points but to get a good idea of what should be there more localised vegetation surveys should be done.

Size while the method of scalping removes the weed seed bank for the area, a lot of time and effort is required to stop the re infestation of weeds. Time is not something that farmers have loads of, so making smaller patches requires less maintenance but still allow introduction of ground cover species.

From small patches, big patches grow

COST CONSIDERATIONS

Not everyone has access or the money to pay for machine operators to scalp massive tracts of land. By using micro scalp sections, the method becomes accessible for small sites and anyone who has access to a hire company to get a small excavator for the day to scalp.



The Muller family planting Themeda into a micro scalp

RESOURCES

- Revegetation: There are loads of resources out there if you are not working in an area covered by a revegetation guide to start looking, getting in contact with your local Landcare or Natural Resource Management agency is a good start. Otherwise here are some links.
- South West Slopes and Riverina Revegetation Guides
www.revegetation.org.au
- Trees near me app
<https://www.treesnearme.app/explore>
- Landcare NSW
<https://landcarens.org.au/>
- Reconstructing grassy understories in south-eastern Australia: Interview with Paul Gibson-Roy
[https://www.greeningaustralia.org.au/wp-content/uploads/2017/11/INTERVIEW EM R GrassyRestoration Interview PaulGR.pdf](https://www.greeningaustralia.org.au/wp-content/uploads/2017/11/INTERVIEW_EM_R_GrassyRestoration_Interview_PaulGR.pdf)