

A summary of the Bradley Method applied to grassland

- Select a good quality area with lots of biodiversity as the 'core'.
- Minimise trampling. Step on weeds or between plants where possible and avoid walking on areas already weeded. Work in a line or in small groups. Minimise movement while weeding.
- Start with a high quality plot about 1m x 1m.
- Make an inventory of all the plants (native & non-native) in that plot. Add new plants to it as you extend.
- Remove all non-natives from the plot (if in any doubt, leave it – it may be native).
- Bag seed heads of a weed before removing it (seed can be put in green bin).
- Minimise disturbance to the soil while removing weeds. Eg, use a knife to cut weed roots below soil.
- If there are any natives seeding near at hand you can add a pinch of seeds to the disturbance.
- Tamp down any disturbed soil and loosely cover with leaf mulch, Themeda straw or upside-down weeds to prevent re-invasion (most plants can be left on site – some exceptions).
- Work outwards from your initial plot, only as far the bush can regenerate (the more native dominated, the faster it will regenerate; weedier spots are slower).
- Don't overclear. When you reach a weedier boundary, the 'front' you work on should be ~3m deep. Adjust as necessary depending on rate of native regeneration / time available to consolidate. Don't penetrate too much into the weed infested area (= overclearing).
- Consolidate and wait for bush to regenerate before extending the front further into the weeds. While waiting, work on other high biodiversity plots.
- Record where the plot/s are so you can return to do follow up weeding and extend out from the same spot next time, e.g. landmarks, GPS or photograph location.
- Always follow up after a fire: remove weeds before they replenish the seed bank

Be careful to cover your tracks when you leave. Anything that looks like a desire line will look inviting to the public.

Particular care is needed when you reach a solid weed front

- eg, creek banks, boundaries, path edges, entrances, around benches and other infrastructure
- danger of overclearing, of enabling weeds to enter good areas, of excessive need for follow-up
- first bring the good bush right up to the weed boundary
- then make small, wedge-shaped openings ~2m wide into the weedy area
- spot regeneration around isolated native plants in the weeds to reduce competition
- Bradley did not advocate 'hanging weeds on weeds' or 'piling weeds in heaps' that turn into 'a nasty squashy mess'. She gives an example of someone who hung lantana canes into a lantana bush which then took root. However, on grassland weed boundaries, we have had success smothering boundary weeds with piles of deseeded weeds and making sure there is plenty of native grass seed in the soil at the 'front'.

How long does it take?

Joan Bradley (1970s radio interview*) describing work on a site at Beecroft Nature Reserve (Sydney):

- initial clearing took 99 person hours
- second year 6 hours
- third year 1.5 hours
- fourth year 1.25 hours (which she expected would be ongoing)
- number of hectares not given

*Radio National 'Earshot' interviews by Nick Franklin, produced 2015. "The other green army: the history of bush regeneration" Parts 1 & 2, about 30mins long each.

Know your weed

The Bradley Method book 'Bringing Back the Bush' uses different weeding techniques for different weeds depending on life cycles, growth patterns, vulnerabilities, etc. Research is needed to identify each weed's 'weak' point. For example, say you have an annual weed and its seed only stays viable for one year. Knowing this, you will pull it before it sets seed. There's no point pulling it up after seed has fallen (see "[Know Your Weed](#)" template and example).

Bush Regeneration Approach

"Weed **control** means just killing weeds while **bush regeneration means growing a native community**. This is an important difference between bush regeneration and weed control programmes." (Buchanan 1991:7)

*"Remove all species of weeds from areas weeded. **Never single out a particular weed as your pet hate forgetting all others in pursuit of it.**" (Bradley, 2002: 38)*

*"Weed control succeeds when you bring back the bush – the strategy of favouring natives against weeds. To do this may involve a change of attitude. In our method of bush regeneration, it is the natives we are thinking about. **We are concentrating, not on eradicating weeds, but on enabling native plants to grow, unhampered, in the environment that suits them best....direct your mind always, not to the slaughtered weeds, but towards the growing natives.**" (Bradley, 2002: 16)*

Jarrold Rūch's habitat restoration workshop (GCG) built on the Bradley method, suggesting we accept 'new nature' as nature trying to fix itself using whatever is available in its 'toolbox' (including plants we regard as weeds). We should think about why those weeds are there rather than trying to destroy them wholesale as quickly as possible (the kind of controlling mindset that got us into this mess in the first place and could actually do more harm than good). Eg, cleared, impoverished landscapes might grow a prickly poisonous weed that is very effective at keeping grazing animals out while the land is recovering. A weed on a riverbank may be preventing bank erosion. So instead of constantly being in 'fight' mode about invasive weeds, we should relax, recognize they are there for a reason (try and understand what that reason is) and focus on retaining the areas of high biodiversity so we can improve and extend them and not lose any more.

Jarrold's preferred method was to remove weeds from the weeded area completely as the invasive weed's dry foliage may favour certain microbial relationships in the soil that may not be conducive to natives. The soil flora, fauna and fungi are the landscape's memory and 'intelligence'. He preferred covering disturbed ground with straw from a Themeda bale (or similar). This is ideal but in the absence of a bale of Themeda, we'll need to use the material at hand, including dug up weeds to cover any soil we have exposed.

Bush Regeneration References and Resources

- Bradley, Joan. 2002.** *"Bringing Back the Bush: the Bradley Method of Bush Regeneration"* Pub. Reed New Holland.
- Buchanan, Robin A. 1991.** *"Bush Regeneration: recovering Australian landscapes"*. Pub. TAFE Student Learning Publications, Sydney.
- Buchanan, Robin A. 2009.** *"Restoring Natural Areas in Australia"*. Pub. NSW Department of Primary Industries and Energy.
- Ralph, Murray. 2009.** *"Growing Australian Native Plants from Seed: for revegetation, tree planting and direct seeding"* (2nd edition). Pub. Murray Ralph / Bushland Horticulture.
- Australian Association of Bush Regenerators:** www.aabr.org.au
- Friends of Grasslands:** www.fog.org.au