Landcare Fact Sheet No.3

Mulching and planting is best left to sites with low regenerative capacity. This factsheet explains the different levels of regeneration on different sites and the types of Landcare techniques that suit.

The Three Rs of Landcare

Landcare involves a range of techniques that are often confused because they all start with the letter 'R'. However each technique has a different goal in mind as shown by the table below.

Restoration / ecological regeneration	The return of a community to it's pre-disturbance or natural state through natural processes of regeneration (e.g. from seed bank). Often assisted by weed removal.
Revegetation/ replanting	The planting or direct seeding of native species in areas that have been cleared or modified (where seed banks in soil do not exist). The use of local provenance seed is preferred.
Rehabilitation	The creation of a new or modified environment, often with landscaping and including non-indigenous species.



The best outcomes for habitat, protection of species and maintenance of ecological functions are achieved by favouring restoration and ecological regeneration techniques. The next best option is revegetation with local provenance species and, if neither of the first two options can be achieved, then rehabilitation may be appropriate. Deciding if restoration/ regeneration techniques can be used will depend on the regeneration potential (resilience) of individual sites.

Different categories of regeneration potential

Different Landcare sites have different ability to regenerate and a site assessment will help determine this ability. A site may be assessed to be in one or more of the following categories:

- A. High regeneration potential Bushland in good condition with a mix of tree ages, natural regeneration occurring on site, an understorey comprised of native grasses, herbs or shrubs, and contains a range of habitats for native fauna (logs, shrubs, hollows, leaf litter etc).
- B. Medium regeneration potential Moderately disturbed bushland with some regeneration of trees and shrubs, where there may be a regrowth area with trees of even age, where native shrubs and grasses are present in the understorey even though there may be some weeds
- C. Low regeneration potential Highly disturbed bushland where the native understorey has been removed, there may be significant weed invasion and dead and dying trees, no natural regeneration of trees and shrubs, but where the land is still capable of being rehabilitated.

D. No regeneration potential - includes parks, sports-grounds, native gardens, permaculture gardens, degraded sites, some school grounds and general community use land, where restoration of a native plant community involves revegetation rather than regeneration.

Note that most Landcare sites, especially larger ones, are a combination of the above categories.

Which kinds of sites is mulching suitable for?

Generally speaking, mulching should be confined to C and D categories, where there is little or no site resilience, and where reconstruction of a native plant community is necessary.

There are several dangers in "importing" any foreign material to our sites, particularly soil and mulch. Soil may bring in pathogens, weed seeds, mycorrhiza, fungi and soil organisms which could be detrimental to the plants and animals on our sites. "Imported" soil may also be of a different structure and texture to the natural soil on our sites, and have different ratios of trace elements and nutrients. As Landcarers, we should work with the soils we have on our sites; after all, the native plants on our sites have adapted to these soils. Mulch can bring in all of the above, as well as

larger fauna, such as species of frogs, mice and snakes, which may not naturally be on our sites, and which may be carrying disease. This is why mulch delivery is coordinated through the Landcare Resource Centre; the mulch is checked and is weed free and this minimises the chance of contamination of our sites. As a rule, mulch from other sources must not be used on our Landcare sites. (Check with the Landcare Resource Centre if unsure.)

One solution to the problem of 'importing' mulch and 'exporting' green waste from our Landcare sites is to use suitable weeds as mulch. For more information on this topic see Fact Sheet 4 Managing Weed Waste.



Above: A nasty weed - Castor Oil Plant - brought in by donated mulch

Which kinds of sites is planting suitable for?

Planting is most suitable for category C and D sites, where natural regeneration is limited. It is always best, where possible, to allow for the regeneration of species from the site's own seed-bank as these individuals will be most suited to the site's conditions and are naturally most genetically appropriate. However, planting on Landcare sites can provide other benefits such as community involvement, faster outcomes, increased diversity - so in some cases this action may be used to supplement natural regeneration, even on Category A and B sites. Plants ordered through the LRC are grown from locally native stock so are appropriate for planting on Landcare sites. Always consult the LRC when planning plantings so that the most appropriate species and stock can be selected for your project.

Lake Macquarie Landcare

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