

FACTS SHEET No. 3

To Mulch or not to Mulch.... that is the question.

by Carl Fulton

When the Landcare site assessment process was begun in 2002, we used an A, B, C and D system of categorising the community reserves that we are working on.

An **A category** is bushland that is in good condition with a good mix of tree ages, with natural regeneration occurring on site, where the understorey is comprised of native grasses and herbs or native shrubs, and which contains a range of habitats for native fauna (such as logs, shrubs, tree hollows and leaf litter).



Healthy native vegetation

A **B category** is 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 weed invasion.

Degraded native vegetation



A **C category** is highly disturbed bushland where the native understorey has been removed, where there may be significant weed invasion and where dead and dying trees are present, where there is no natural regeneration of trees and shrubs, but where the land is still capable of being rehabilitated.

A **D category**, includes parks, sports-grounds, native gardens, in one case a permaculture garden, extremely degraded sites like Wyee tyre dump, some school grounds, SQID sites and general community use land, where restoration of a native plant community involves revegetation rather than regeneration.

A number of sites fit neatly into one category, but most Landcare sites, particularly the larger ones like Galgabba Point, Bangalay Reserve, Wangi Ridge, and Green Point Foreshore Reserve, consist of a mosaic of the above categories.

Generally speaking, mulching would 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.

A and B category sites should not really be mulched except perhaps for an edge planting: in these sites, weed removal is usually all that is necessary, and even planting may not be required. The best native plants to grow on any site are the ones that will naturally regenerate there. If we mulch a site to suppress weeds, we are also suppressing native plant regeneration particularly if we use mulch-mat or cardboard.

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, and so should not be imported to our work areas. "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. Basically, the message is, 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 Office; the mulch is certified as weed free and minimises the chance of contamination of our sites. As a rule, mulch from other sources should not be used on our Landcare sites. (Check with the Landcare Resource Office if unsure.)

One solution to the problem of "exporting" green waste from our Landcare sites and "importing" mulch is to use weeds as mulch around regenerating native plants or young plantings.

Many of the "soft" weeds like Cobblers' Pegs, Cat's Ear, Plantain, Dock, Fleabane, etc make excellent short term mulch around young native plants, as long as they are weeded and placed around the young trees before seed has set.



Woody weeds, like Lantana, Bitou, Purple Top and Cassia, can also be broken up and used as longer-lived, rough mulch or positioned as a barrier around young native plants to deter rabbits (as Bruce Porter is doing at Caves/Hams Beach and Peter Burton and the Work for the Dole team are doing at Redhead).

Don't however use weeds that are capable of reshooting easily (like Asparagus Fern, Madeira Vine, Mother-of-Millions, etc.)

Prioritising our weed species on site may also allow us to use some weeds as short term shelter plants or living mulch: for example, Tobacco Bush is used as a pioneer shelter plant for slower growing, less sun-tolerant native species in rainforest regeneration (it can easily be removed if there is a native substitute like *Omalanthus nutans*-Bleeding Heart or *Trema aspera*-Poison Peach on the site, or when the native plant canopy begins to close), and many annual and biennial weeds can create a beneficial microclimate around young plantings (such weeds normally reduce in vigour when the native trees and shrubs shade them, and they can then be replaced with native groundcover species).

Resilience is the capacity of the site to restore itself to a native plant community following weed removal or disturbance such as fire, storm or forest mulching, for example.



Tree Decline 
 Regeneration