

tips & tools

NATURAL RESOURCE MANAGEMENT



Native vegetation 2: Improving the value of remnant vegetation

Much of the Australian rural landscape will lose its native vegetation if better management approaches are not developed and adopted. Overgrazing and nutrient enrichment have had a major impact on the understorey layers in particular, but have also reduced (or prevented) tree regeneration. Taking action to improve the health of the remnant vegetation we have is a high priority for on-farm revegetation.

Tactics

Assessing the condition of remnant vegetation on your farm is the first step to improving remnant vegetation health. Determining what aspects are degraded can provide some pointers to what needs to be done to restore their health (see also *Native vegetation 1: Assessing the condition of remnant vegetation*).

Manage grazing and nutrient build-up

Remnants should be fenced to better manage grazing and prevent long-term stock camps. Controlling stock access will minimise the damage to understorey species, and halt any unnatural nutrient build-up. Remnant vegetation can be used for occasional grazing and for emergency stock shelter, but prolonged grazing will almost always degrade the area. Manage fertiliser programs around the farm to prevent nutrients being applied to areas of remnant vegetation.

Increase habitat diversity

Don't tidy-up or over-harvest firewood from remnant vegetation areas, and retain dead trees, as these provide vital nesting sites. Fallen timber provides food, habitat and protection for many fauna species.

Re-establish the understorey (shrubs and grasses) by keeping stock out and allowing regeneration from existing seed if possible. If there is a lack of viable seed or a dominance of weeds, it will be necessary to re-introduce a range of local understorey species. Provide artificial nesting sites (nesting boxes) in remnant areas where mature and dead trees no longer provide sufficient nesting sites for key local bird species.

Key benefits

- Identify early warning signs of degradation in remnant vegetation to avoid long-term decline
- Recognise farming practices that improve the condition of remnant vegetation

Increase tree regeneration

Minimise grazing to allow regeneration of young trees from seed, or by planting local provenance species. Burning can assist regeneration under some circumstances, but there are risks associated with high intensity fires and burning before existing young trees are mature enough to withstand the fire. Seek local advice and then only burn small areas, monitoring the results before using this technique for larger areas.

Control pests and weeds

Control weeds in remnant vegetation using grazing management, mechanical removal or chemical control (not recommended along watercourses). Weeds are often most active along the edges of remnant vegetation and may be effectively managed by increasing the size of the remnant and reducing the weed threat. Control pests (rabbits, foxes, cats, pigs, perhaps kangaroos) that may build up in the improved habitat your remnant vegetation provides.



Increase remnant area size

Increase the size of remnant areas where possible and link them with other areas through corridor plantings. Target regeneration to build on existing vegetation areas (for more detail refer to *Native vegetation 1: Revegetating the farm* in this series of *Tips & Tools*).

Resource management facts

Healthy remnant vegetation has:

- Healthy mature trees that actively produce seed and have an array of nesting hollows
- Saplings (young trees) that have germinated and are in the process of providing the mature trees of the future
- A well developed and diverse understorey based on naturally occurring local ecosystems
- Fallen trees, branches, bark and leaves to provide food and habitat and to help protect the soil surface
- A healthy soil surface covered with organic matter and free from erosion or soil compaction
- Few exotic weeds, often associated with having a low edge-to-area ratio

Birds are useful indicators of vegetation health. A diverse range of bird species inhabiting the ground, the understorey layers and mature trees indicates the remnant vegetation is healthy.

Vegetation along rivers and creeks provides critical habitat for many native animals and plants and careful management in these areas is a high priority.

Small and isolated remnants can make an important contribution to biodiversity conservation, but big is generally better. **Every property should aim to have at least one significant area (more than 10 hectares) of native vegetation.** Few native perennial plants are good dispersers of their seed, so many small remnants will not be able to regenerate some species successfully without intervention.

Several plant species require some form of disturbance to break seed dormancy and emerge from a persistent soil seed-bank. Many legumes (such as wattles) only germinate following heat shock or exposure to smoke. Some eucalypt species are most likely to establish seedlings in the gaps created by the death of adult trees following disturbances such as fire. Seek local knowledge about the response of different species to fire.

Site preparation is critical for successful plant regeneration. Successful regeneration/restoration is highly dependent on water availability to the newly established plants. Control moisture-competing weeds and water well at sowing/planting. Trees and shrubs should be sown/planted at a time of the year when moisture is most assured.

Management tips

- Small patches and isolated trees in grazing paddocks are not sustainable, a fact that is masked by the long life span of the remnant trees.
- Monitoring is the key to evaluating the effects of particular practices and allows you to respond to changes over time. Photos and other records are very valuable for monitoring the changes that occur in native vegetation over time, particularly if strategies have been implemented to improve the condition of remnant vegetation.
- By the time remnant vegetation areas are degraded, it may be too late to take action to improve their condition. Look for early warning signs, especially declining understorey, and take action to avoid long-term decline.
- Overgrazing damages native vegetation, so careful grazing regimes (such as frequency, intensity and season) are the key.

Further information

This publication is part of a series of *Tips & Tools* on biodiversity that provides further details on managing native species within a grazing enterprise. For a copy of the *Biodiversity Tips & Tools* series call the MLA producer hotline 1800 675 717 or email publications@mla.com.au

Information on how to manage biodiversity and to enhance your longer-term profitability can also be obtained from rural facilities in Universities, Departments of Agriculture, Natural Resources and Land Management.

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