

Revegetation Basics

The importance of revegetation

Revegetation offers a wide range of benefits to landholders – and with a bit of planning and preparation, you can ensure you get the most out of your revegetation project. Some of the benefits include improvements in biodiversity, improvements in stock health and overall improvements to farm productivity.

Planting native vegetation on your property provides many environmental benefits to flora and fauna by providing habitat and food. It also contributes to farm productivity by providing stock shade and shelter, as well as improvements to water quality by reducing sediment and pathogens in runoff. In addition to shade and shelter, revegetation corridors and patches can provide:

- alternative grazing once trees and shrubs are established
- improved flood resilience by 'holding banks together' during high flows
- reduced runoff, improved infiltration and improved water quality
- improved animal health
- in the longer term - erosion stabilisation, salinity control, reduced weed incursion
- a sustainable source of firewood.

Photo 1: riparian revegetation reduces the risk of further streambank erosion



Photo 2: Riparian revegetation will improve water quality and flood resilience.



Planning and execution

Preparation is key

Revegetation is a bit of work but can provide great rewards. To get the highest return on your effort, preparation is key. The following steps are the recommended order for site preparation for revegetation on most larger-scale sites: Rip – Spray – Fence – Rip – Spray – Plant. Deep ripping requires suitable machinery with a ripper. It's important to remember:

- re-ripping should follow the first rip line
- rip along the contour where possible, or when ripping down slope - always lift the ripper out at regular intervals (e.g. every 20m) to reduce erosion risk
- deep ripping should reach at least 50cm depth and shouldn't be carried out when the ground is saturated
- ripping should be completed at least a month prior to planting and ideally receive a good rainfall event to consolidate any air voids.

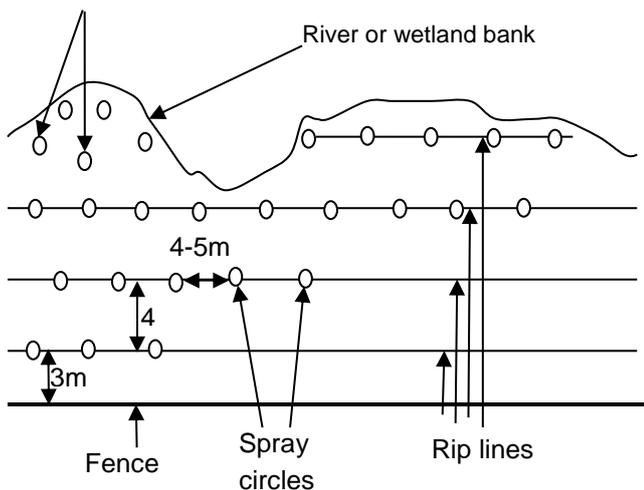
Photo 3: Example ripping layout



Knockdown spraying of rip lines or spot-spraying planting sites is ideally required up to three times at 4-6 weekly intervals. Note that some difficult weeds need to be treated with the appropriate herbicide when actively growing.

Figure 1: Example design for revegetation preparation

Random spray circles on un-rippable ground



If you're planting on a smaller scale, in difficult terrain or on erodible soils, ripping may not be necessary (or recommended) - but preparation is still key. You'll need to spot-spray, or dig up the vegetation immediately surrounding the plant, so that they won't have to work so hard to establish and compete with other plants.

Please note: if planting is to be undertaken in native grassland, spraying is to be minimised or avoided.

If you're digging individual holes for plants, make sure the sides of the holes aren't polished to hard surfaces (especially if using an auger or similar). If the sides of the hole are circular and/or hard, it makes it more

difficult for roots to penetrate. so you may need to rough-it-up with a shovel or hand-spade.

Species should be native to the area and soil type, and planting stock of local provenance should be used wherever possible to improve success rates. Guidance on the species that are right for your site is available from Local Land Services and your local native nursery, and remember that structural diversity is important too, so be sure to include trees, shrubs and groundcover species too. To ensure you get the plants that are right for you, contact local native nurseries and get your order in early.

All revegetation sites must exclude stock, at least until plants are established enough to tolerate a little browsing. Fences must have at least 80mm steel or concrete strainers at the corners, and it is recommended steel posts be placed 4-5m apart with a minimum of 5 wires (or 4 if you are using netting/ringlock/hingejoint).

On to the planting

Planting should only take place once your site has been prepared. Seedlings should be 12 months old and well hardened-off.

Use a mattock to prepare a hole in the rip line for each plant, place the plant in and backfill the hole, compacting the soil well to ensure you don't leave any air-holes against the roots. Plant roots need soil to grow in, not air!

Plants need to be watered-in well. You can do this by creating a sort of bowl around the base of the plant, so that you can apply around 5-10L to each plant. That way, generous initial and follow-up watering will encourage roots to follow the water down through the soil profile (rather than developing closer to the surface where they will dry out faster). Follow up watering should only be required a few times to get your plants off to a great start, unless conditions are very dry.

We also recommend guarding the plant with either a milk-carton guard and bamboo stakes, or with larger/hardier guards with hardwood stakes if you think your new plants might be chewed by wombats, rabbits, deer etc.

Remember to space your plants out enough that as they mature, they don't shade out the groundcovers,

as groundcover plants are essential to protecting soil health and stability by reducing runoff and increasing moisture infiltration.

Table 1: examples of plant spacings

Plants	Spacing from other plants	Things to consider
Trees	Approx. 5m	Keep trees 3m from fences to reduce maintenance issues.
Shrubs	Approx. 3m	Shrubs increase biodiversity and assist in controlling wind speed.
Groundcovers	Variable - according to species size and requirements	Make sure other plants are spaced to ensure they don't shade out groundcovers.
All plants		Include a mix of species to increase resilience (e.g. to pests and diseases and changes in climate) and biodiversity.

With good planning and preparation, you can expect a higher degree of success from your revegetation efforts.

Maintenance

Livestock exclusion is essential. Livestock damage to newly planted trees is one of the major causes of tree loss after planting - along with lack of watering, poor weed control and incorrect species selection.

Livestock should be excluded for a minimum of 5 years to allow plantings to establish, after which time grazing can occur. Grazing should then be light-intensity and for short periods, followed by long rest periods to allow for recovery and growth of native vegetation. This occasional grazing will help reduce biomass and lay down rank material (to assist in bushfire hazard reduction and keep groundcover levels high).

Every land manager has a general biosecurity duty that requires ongoing management of weeds, and this applies to the revegetation areas as well, so weeds will need to be managed on an ongoing basis.

More information

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Acknowledgments:

Developed for the Rural Landscape Program, which is funded by WaterNSW.

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