

# Linking Coolangatta Mountain vegetation to remnant farm shelterbelts

**Location:** Berry, NSW

**NRM Region:** Southern Rivers CMA

**Industry:** Beef farming / lifestyle

**Issues:**

- ◆ Weed control
- ◆ Shelter for stock
- ◆ Linking remnant vegetation

**Landholder Vision:**

- ◆ To sustainably manage the land to the best of our ability and achieve a balance between productivity and conservation.
- ◆ We aim to leave the property weed free, productive and with a rich diversity of native vegetation for future generations.

**Funding:**

- ◆ The Australian Government Envirofund is the local action component of the Australian Government's \$3 billion Natural Heritage Trust.



SOUTHERN COUNCILS GROUP

## Background

The area was once known as Back Forest and is dominated by Coolangatta Mountain to the south and Broughton Creek to the west. A vast majority of the area has been cleared, and our property contains much of what is regarding as the original forest. The land is steep, has low fertility and an underlying shale subsoil which allows the water to drain freely into local swamps and eventually the Shoalhaven River. Severe annual westerly winds create pasture and livestock management issues, in particular the re-introduction of invasive weed species via wind borne seeds (eg: Fireweed).



In 2001, a 9-metre wide, 500-metre long shelterbelt was established on the eastern boundary to link Coolangatta Mountain to neighbouring shelterbelts in an attempt to protect livestock from the easterly winds. Both projects are part of our whole farm plan for improving local biodiversity and creating a sustainable and productive beef enterprise.

## The Project

A 500m shelterbelt / wildlife corridor was established on the western boundary to link Coolangatta Mountain's remnant vegetation to an existing stand of *Eucalyptus saligna* (200 trees) and to existing shelterbelts on the northern and eastern boundaries of the property. The shelterbelts provide protection against the westerly winds for livestock; will improve our ability to establish persistent perennial pastures; catch windborne weed seeds and ultimately assist in creating a more sustainable farming system.



## Expected Outcomes

Our expectations are high, and while results will be difficult to measure over the first five years, we expect to record:

1. Reduced runoff of soil and residues into Broughton Creek as a result of filtration through the shelterbelt;
2. Increase wildlife activity (birdlife) utilising the corridor, including migratory seabirds and an increase in the biodiversity of the immediate area;
3. Increased persistence of perennial pasture species for livestock production and a reduction in invasive weed species; and
4. Improved performance and happier livestock overall.

## Planning and Planting

Doing things for the second time made things a bit easier. We had a good sense of what worked, what didn't, what things really take time and what can be avoided. The key lessons was that we did not need to irrigate the trees, which we did on the first shelterbelt. This saved us a lot of time and effort. Over 20 volunteers assisted with the planting. In advance, tubestock were labelled with paddle pop sticks so we could ensure a

spread of the species.

On the day, a system was established; a volunteer sorted the tubestock into groups; another soaked them in Seasol fertiliser; another distributed them as per planting plan; two volunteers distributed the bamboo stakes and tree protection bags at each hole; and two volunteers were given the important job of quality control. Making sure the tubestock were correctly planted, staked and mulched was vital in our planting success.



### Species

A variety of species were chosen to ensure success of different species and for design. The melaleucas were planted on the outer western row to protect the eucalypts as they grow, eucalyptus in the two middle rows and then shrubs on the eastern, sheltered row. This was designed to provide the best protection from the westerly winds and be visually appealing.



### Ongoing Maintenance

This really is the challenge, the weeding is endless. We hand weeded, hired help when required and sprayed with Round Up to keep the weeds at a minimum. There is lots of follow up work just walking along the trees, checking and adjusting the bags, making sure the mulch is well distributed, that trees aren't covered in bugs (the melaleucas seem to attract a bug which we picked off).

### Results so far

Fantastic!! Over a 95% success rate. After six months, tree heights vary between 0.5m to almost 2m. These heights are affected by soil type, species, who planted it, aspect and wind effect / damage. Species on the western row are growing better than those on the northern row, despite there being some established trees on the northern row providing some protection.



It is the first spring for the shelterbelt and it is wonderful to already see the red Callistemon

### Additional projects

A shelterbelt or two on 100 acres doesn't solve all your problems. Coolangatta Mountain is infested with lantana which we are in the process of clearing and managing, with the assistance of a federally funded research project assessing different methods of lantana control. We have successfully applied for a *Bush Incentive Scheme* grant from the Southern Rivers Catchment Management Authority and have Shoalhaven Council support for our initiatives to rid Coolangatta Mountain of lantana.

The property has a number of eroded gullies which require action and stabilising with native shrubs and grasses. Fortunately, we have received another *Envirofund* grant to undertake this work in 2007-08.

And finally, as part of our management plan, we are assisting Shoalhaven Council to fox bait on Coolangatta Mountain by providing access to their land adjoining our property.

Once you start trying to improve your land, the process is a long, hard, yet rewarding one. We are enjoying it so far, we see the beautiful black and yellow cockatoos each morning munching on hakea nuts, kookaburras cackling away as we wake up and end our day, and 3 new calves to inspire our pasture management! All in all, a journey worth being on.

### Species List

*Eucalyptus saligna*  
(Sydney Blue Gum)

*Eucalyptus tereticornis*  
(Forest Red Gum)

*Casuarina cunninghamiana*  
(River She Oak)

*Corymbia maculata*  
(Spotted Gum)

*Syncarpa glomulifera*  
(Turpentine)

*Melaleuca armillaris*  
(Giant Honey Myrtle)

*Melaleuca stypheloides*  
(Prickly-leaved Paperbark)

*Acacia melanoxylon*  
(Blackwood)

*Acacia binervata*  
(Two-veined Hickory)

*Leptospermum juniperinum*  
(Prickly Tea-tree)

*Leptospermum petersonii*  
(Lemon Scented Tea-tree)

*Kunzea ambigua*  
(White Kunzea)

*Callistemon citrinus*  
(Red Bottlebrush)

*Hakea teretifolia*  
(Dagger Hakea)