



Before



During

## Compost for roadside landscaping – a case study from the Sturt Highway, SA

### Where

The Sturt Highway,  
South Australia

### What

Revegetation of roadside  
batters using compost

### Why

Improves erosion control and  
boosts plant establishment  
and survival

### Outcome

Compost application has proved  
successful so far, revegetation  
monitoring is ongoing

### The Sturt Highway project

Compost was spread at various locations on a 16km stretch of the Sturt Highway between Gawler and Daveyston, South Australia. The area contained approximately 2.8ha of cut batters - made up of rock, clay and a dispersible sand mix.

Approximately 700m<sup>3</sup> of compost was spread over the batters with an Express Blower to a total depth of 25mm. A mixture of around 20 different species of native seeds was hand sown into the compost. Hand sowing was used as the native seeds ranged in size from heavy seeds (acacia) to light seeds (blue bush). These seeds were too inconsistent in size and weight to use the usual blower method.



Before



After

### Roadsides and batters

Re-vegetation of roadside areas proves challenging when they have been cut away in the form of batters (a sloping wall on the side of the road). This is due to the often shallow and poor quality soil on batters. The Department for Transport, Energy and Infrastructure South Australia (DTEI) has often managed this problem by hydroseeding, which involves spraying a mixture of paper, binder and native seeds on the batters. However, a new South Australian project is trialling compost application in these areas to investigate its potential to boost plant establishment and survival as well as improve erosion control. Compost is used successfully in this manner in other Australian states as well as in other countries overseas such as the United States of America.

Seed establishment can be a tricky proposition in roadside landscaping. Traditional methods of seed application like hydroseeding are easy to use but success is often highly dependent on the environmental conditions at the time of application. While the initial moisture content of the material applied is high, moisture retention is often poor. If the material is applied when conditions aren't conducive to plant growth (as often can be the case in large scale landscaping projects) then false germination can occur. This means that there is enough moisture to cause seed germination but not enough moisture to support the growing seedling. It is anticipated that using

compost can help to alleviate some of these problems due to its greater water holding capacity. Compost can also supply many of the nutrients needed for plant growth due to its relatively high nutrient content and high levels of beneficial microbes that can also improve nutrient cycling within the soil.

### Benefits of compost in roadside landscaping

Using composted products provides longer term soil conditioning benefits and can also allow for a higher rate of plant germination and establishment. Compost can also protect the surface of the batters from erosion.

Soon after compost application in the Sturt Highway project, the area experienced a one-in-five year rain event. The compost held together well on the batters and there was very little evidence that a major rain event had occurred. Compost protected the surface of the batters from erosion and kept the seeds in place on site.

Compost is often applied on steep, sloping areas during roadside landscaping for its ability to maintain good soil structure, reduce erosion and improve water holding capacity and water infiltration rates. Compost applications can give revegetation efforts a better chance of success.



Spreading compost with an express blower



Compost close-up



After spreading seed

### Compost benefits

Composted products improve the soil and provide nutrients to growing plants which in turn allows better germination and establishment of seedlings. Compost can:

- build better soils
- fertilise your soil and plants
- grow stronger, healthier plants
- improve water retention
- suppress diseases
- reduce erosion.

For more information on the program contact:



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