

Plant communities help to stabilise watercourse banks in BIGG project

Significant changes in ground cover and site recovery have been observed at the halfway mark of the Barossa Improved Grazing Group's (BIGG) one-year watercourse rehabilitation project.

The project, which received funding through a 25th Anniversary Landcare grant from the Federal Government, has included developing a site to compare the effectiveness of different plant communities at stabilising watercourse banks.

This includes four sections: native grasses, understorey plants up to 60 centimetres tall, trees and a combination of understorey plants and trees. The 20-metre plots have been replicated and compared with control areas along a watercourse on dairy farmers Ben and Murray Klemm's property at Moculta, near Angaston in the Barossa Valley.

BIGG technical facilitator Georgie Keynes said the results so far had been impressive.

"Before the fencing and planting, the dairy cows would make the most of the green pick in summer in the moister conditions of the watercourse which led to pugging, mud and in some areas less than 20 per cent ground cover," she said.

"This area now has 100 per cent ground cover, with no pugging or watercourse erosion, which is a great turnaround after only 12 months."

Work in the first year has included fencing the site, removal of woody weeds briar rose and artichoke and planting of tube stock species. The sole remaining plant from a vegetable garden which used to be at the site, a quince tree, has flourished with the stock control. However, weed control remains a problem.

"Caltrop, which was already present in small numbers, has thrived in the areas which were sprayed out for planting," Ms Keynes said.

"Ben and Murray have controlled it in the paddock using boom spraying either side of the watercourse fence and using a backpack spray pack within the watercourse area. As competition from the native plants increases, the caltrop is likely to reduce."

The Angaston Ag Bureau hosted a 'sticky beak' meeting in February to show members the site and learn about the importance of watercourse rehabilitation. The feedback was positive, with members commenting on how "amazing" it was to see how quickly the site had rehabilitated once the stock were removed.

Due to the early end to the season, plants were watered in October, December and January. Despite the conditions, there has been a 70 per cent survival rate of plants.

Natural Resources Adelaide and Mount Lofty Ranges district officer Julian Marchant said some plants would be replaced in favour of traditional species.

"The more traditional species including the eucalypts, acacias and most of the native grasses have survived, while the more unusual species such as the lomandra and convolvulus have not," he said. "We will replace these species with the more traditional ones for in-fill planting in 2016."

In its second year, an adjacent section of watercourse will be fenced off to determine the cost effectiveness of machine direct seeding.

For more information visit www.biggroup.org.au

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Members of the Angaston Ag Bureau at the watercourse rehabilitation site. Click on the image or [click here](#) to download a high-resolution copy of the image.



Angaston Ag Bureau visits the watercourse rehabilitation site. Click on the image or [click here](#) to download a high-resolution image.