CLYDE TACKLES ENVIRONMENTAL ISSUES HEAD ON

It takes a special company with real commitment to face up to the environmental headaches of sustainable cotton development in the 21st century. Swire Group affiliate, Clyde Agriculture Ltd in Bourke, has proven to be just such a company confronting problematic highly permeable soils head-on by taking a revolutionary and environmentally friendly approach to their problem.

Initial testing by the NSW Department of Land and Water Conservation established that while the soils were adequate for growing cotton, their ability to “seal off” was poor beneath what would become the floor of a massive water storage approaching 11,000ml split in two cells. In order to proceed with the Beemery development and conform with DLWC requirements, Peter Cottle, General Manager Cotton Operations for Clyde, pursued the concept of Impact Compaction as a cost effective method to minimise leakage.

Backed up by Adelaide based compaction specialists, Broons Hire, Clyde has employed the proven technology of Impact Compaction to overcome their hurdle utilising a pair of Broons’ BH-1300 "Square" Impact Rollers. Stuart Bowes, Manager for Market Development with Broons Hire, takes up the story.

"Several areas on the floor of the storage were marked out for trials to determine the optimum number of passes before the bulk of the project got under way. Selected areas both in the borrow pit and on natural ground were treated. Testing resolved that while a minimum of 10 passes would achieve a satisfactory result, 14 passes provided additional security at minimal extra cost."

"An unseasonally wet winter delayed progress across the floor of the massive storage but in the end the project came in on time and well under the original budget estimates with an alternative machine."

Piezometers set around the storage will monitor the ongoing success of the Impact Compaction.

"The job at Beemery is certainly the largest single storage we have Impact Rolled in a lengthy history spanning over 10 years with the Cotton Growers throughout Australia. The Bourke area has proven particularly suited to our Impact Roller," said Mr Bowes. "2000 Cotton Achiever of the Year, Steve Buster Darling Farms has used our machine since 1997 while both the Bourke and Brewarrina Shires have proof rolled over 100kms of black soil road formations using our Roller."
An impressive feature Broons' "Square" Impact Roller is the high travel speed combined with the depth of influence resulting in significant productivity, far in excess of that achieved with alternative compactors. Operated at around 10kph, the 13.8 tonne "Square" Impact Roller covers 2,300m2 per hour with 10 passes of the machine.

“Our water resources are a valuable commodity in the driest continent on earth and we are proud that a machine developed by an Australian company is playing a crucial role in the battle against water loss and ultimately devastating salinity. Success with progressive Australian Cotton Growers including former Cotton Grower of the Year, Peter Glennie Norwood, has led to wider acceptance of Impact Rolling throughout the irrigation industry in general including Rice Growers in the NSW Riverina.”

"In addition, Murrumbidgee Irrigation and Marthaguy Irrigation have successfully treated previously leaking channels", remarked Mr. Bowes.

Broons Hire offers a number of units available for long or short term hire in their nationwide fleet.