ACRES AUSTRALIA
The national newspaper of sustainable agriculture
Vol 9, No 10 November/December 2001 ISSN 1322-1639 Telephone (07) 5449 1884 NZ $5.25 (incl GST) PRICE: $4.40 (incl GST)

New soil tester promises soil analysis revolution

Agronomist Robert Drewitt has achieved outstanding results in a stressed double-cropped field of wheat at a property near Inverell, NSW. Using the biostimulant Agrispon, he has taken crop yield from four to five bags an acre on the control strips to eight or nine bags an acre. He is pictured in a field of wheat untreated by Agrispon, and is holding a head of wheat from the treated field. See story page 25.

A SOIL-testing tool commonly used in Europe and America is set to revolutionise Australia's farming industry.

John Jashar, who heads up the dynamic natural fertiliser company, Guano Australia Pty Ltd, first saw the penetrometer in action during a recent visit to the USA as part of a combined training package for Agrispon and the penetrometer. He went on the fact-finding mission with independent agronomists Richard Jackson and Robert Drewitt, who act as technical advisors. The trio was so impressed with the penetrometer that they travelled across Texas and Illinois to see the machine in action.

He told *Acres Australia*: "We pride ourselves on being an agricultural industry leader in Australia and, as such, it was important for us to learn how to integrate this machine into Australian farming."

Richard and Robert received training in the use of the penetrometer whilst in the USA and John brought some back to Australia.

But he has now been able to source the tool from Toowoomba-based company, D and E von Pein, having seen an advertisement in *Acres Australia*.

John said: "I have been selecting agronomists via our distribution network across Australia to provide them with both the kit and full training so that they can go out into the field and show farmers what it is all about."

Rob Drewitt said: "It has become a part of my work in every way. It's always in the cabin of my ute, and I expect that in the years to come, every agronomist will have one as a matter of course."

The simplicity of the tool is deceiving. Its name is derived from its use as it is designed to measure the pounds/square inch (psi) pressure required to penetrate the soil to a pre-determined depth.

This measurement then gives a quantitive figure to the grower on the friability and soil structure of his paddock, instead of the only other measurement previously available - a verbal "it's a bit hard there".

The bonus is increased credibility for agronomists and a sure decision-making process for the grower, Mr Drewitt said.

"If a farmer can make this sort of reading, he can then extrapolate the information to help him decide on such things as which crop to plant or which machine to use to prepare the paddock.

"If the penetrometer makes a reading up to 300psi, it is fairly easy for a plant to establish its roots and reach available nutrients. This reading would suggest an ideal soil structure. Readings of 300-600psi would indicate some root restriction, and those over 600psi indicate a soil extremely difficult for a plant to establish itself.

"The tool itself measures about one metre in length and is lightweight. It is pierced into the ground to a set depth to attain a reading. The first of its great advantages will be in helping the grower make management decisions on the type of implement needed to prepare a paddock.

"If a 'plough pan' is evident, there could be the need for a grower to get the paddock deep ripped regularly.

"The penetrometer is also useful in identifying the best crop type to plant.

"A paddock with a high soil compaction would be better suited to a crop with a tap root growth, than a crop with a fibrous root growth. The tap root has a greater ability to apply psi pressure as it grows, and would be more efficient."

Mr Drewitt has a Bachelor of Applied Science in Agriculture and works out of the Bingara Farm Centre, near Inverell, NSW. He has been demonstrating the penetrometer to farmer groups at field days in his area.

"I believe it will become a common tool in agriculture. It's something every agronomist should have," he said. □