

Biofarm set for carbon profits

Key points

- Chemical use reduced through biological farming
- Organic matter increased
- Steps toward carbon trading schemes

BY PAULA THOMPSON

SNOWTOWN farmer Brian Krieg has been able to increase the organic matter level in his soils by from between 1.5 to 1.8 per cent, to 2.5-3pc in three years by using biological farming techniques.

This means he could potentially earn \$50-\$100 a hectare if he became involved in carbon trading.

LawrieCo general manager Andrew VanderSluys says Mr Krieg's results prove agriculture has a real chance to be formally part of carbon trading schemes and not just ones aligned to forestry.

"The one great hurdle stopping agriculture from automatically becoming a major player in all future carbon trading schemes is the cyclical nature of organic soil carbon when cropping," he said.

"That is, you build it up but then you deplete it with continuous cropping. It is not permanently increased so it cannot be 'paid' as a carbon deposit."

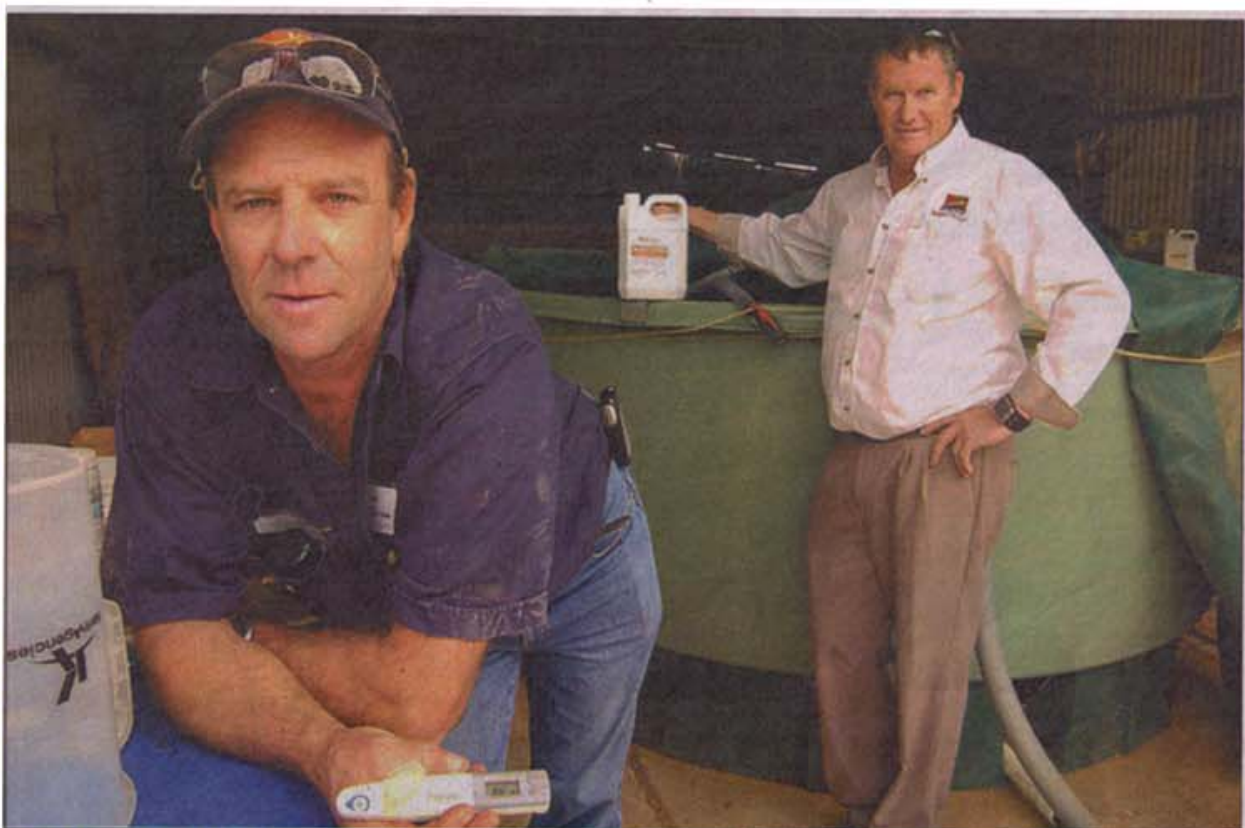
But results from Mr Krieg's farm show he has been successful in building-up organic soil carbon - while continuously cropping - with no backward steps, proving permanent sequestration.

"This now paves the way for agriculture to prove it can permanently sequester Co2 from the atmosphere as fixed organic carbon in the soil," Mr VanderSluys said.

"Given the potential for millions of tonnes to be sequestered, agriculture will far outperform any other carbon sequestration concept in a timeframe faster than any other concept can perform."

"Prime Minister Kevin Rudd was recently on-record as saying he was interested and seeking some way for agriculture to be a part of a properly-convended trading scheme, given its absolutely enormous ability to vacuum Co2 out of the atmosphere. The only sticking point is how can we ensure the average organic carbon level keeps increasing in the face of continuous cropping."

Mr Krieg said he moved into biological farming as a way to



SWITCHING TECHNIQUES: Snowtown farmer Brian Krieg (front) with LawrieCo managing director Adrian Lawrie getting ready for the demonstration at the field day at his farm.

increase the water and nutrient holding-capacity of his soils.

"Through the 1990s I was pretty concerned about our increasing use of urea and DAP," he said.

"It was the same with other chemicals, we kept putting out more and more and not putting trace elements back."

In 2004, his wife Steph went on a study tour to Western Australia, and saw impressive results from biological farming.

"After that I was keen to find out more about it," Mr Krieg said.

Mr Krieg said that after a terrible finish to the 2004 cropping season, with up to 100 per cent screenings in wheat, he wanted to find a way to get around high input costs, particularly for those years with poor finishes.

In early 2005, he attended an introductory seminar run by biological farming company LawrieCo at Jamestown.

Mr Krieg started biological methods on two of his paddocks in 2005.

He saw some success in the first year, with the paddocks that received biological treatment

showing more resistance to an outbreak of stripe rust.

From the next year, he started to use biological treatments on his whole farm.

"I was trying to find a way to lower the costs of inputs and to increase the water and nutrient-holding capacity of the soil, so that when we have a dry finish, it doesn't have such a disastrous effect," he said.

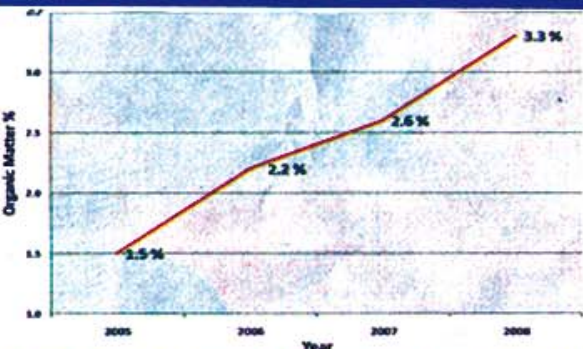
Mr Krieg farms 400ha at his own property, leases another 184ha alongside and sharefarms another 350ha. A recent field day at his farm drew 60 farmers from across the State.

He runs a program consisting almost entirely of continuous cropping, along with some green manure. Bread and durum wheat, barley and peas are cropped, along with vetch for green manure. He has not run any live-stock for the past six years.

"Biological farming is all about getting the soil balanced, building-up microbes and getting the earthworms back," he said.

"Once you've got your soil built-up, crops grow much stronger."

Soil organic matter increase 'Kriegfields' Snowtown



ORGANIC INCREASE: After three years of biological farming, Snowtown's Brian Krieg has lifted his soil organic matter.

He had outlaid \$6000 to switch to biological farming.

"It does take a little bit more time," he said.

"I put out two foliar sprays during the season. I do a foliar spray at four-five weeks, then tissue-test at 10-12 weeks before putting out

another foliar for anything that's lacking."

Mr Krieg said while he had not seen significant yield improvement, he had also not lost any.

"My focus is on producing healthy crops with better nutrients," he said.