

Unlocking soil carbon value

A new river of cash is set to flow through the bush, with agriculture's long quest to be part of a carbon trading market to be realised by year's end. It has come about, not through lobby groups or government frameworks, but through rural Queensland entrepreneur, Terry McCosker, who spoke to Michael Thomson, in his first in-depth interview on RCS's CarbonLink program.

FOR more than a decade Queensland's farming sector has been taunted with the promise of money for carbon as part of policies to combat man-made climate change.

While the concept of carbon trading has been long on promise, it has been short on delivery, crippled by scientific and logistical complexity, bureaucratic inertia and political interferences.

Having been denied the right to sell the 25 million tonnes of carbon locked up in existing timber across Queensland - not to mention vegetation regrowth - due to the State's land-clearing bans, many rural producers felt their hopes of trading carbon had been dashed.

Then, more recently, the Prime Minister's Climate Change Taskforce did not even include a rural industry representative, even though agriculture accounts for 17.7 percent of Australia's emissions, according to a study commissioned by the National Farmers' Federation.

But the dynamic of shifting the carbon trading debate into reality changed dramatically yesterday, when Terry McCosker, founding director of Yeppoon-based rural consultancy business RCS, launched CarbonLink.

It is the first tangible opportunity for graziers to sell the carbon sequestered in

their soil to major emitters, with prices currently running at about \$27/tonne.

That may not sound much, but according to Mr McCosker, the area of land and volumes of carbon potentially available could together massively change the economy of rural Queensland - from land use to farm cash flows to property values - for decades to come.

"We're talking mega-bucks. This will change the face of agriculture within the next five years," Mr McCosker said.

"Kyoto won't make a lot of difference to us - big business is looking at carbon trading one way or the other. The market is leading what's happening and the Government's trailing."

In a victory for private enterprise over government regulation, the concept has bypassed the political debate about possible trading systems. And yet it has been thorough and credible enough to be part of Sydney Financial and Energy Exchange (FEX, a carbon stock exchange) launched yesterday by former US Vice-President and climate campaigner, Al Gore.

Mr Gore's endorsement of FEX, of which CarbonLink is one of just two initial carbon aggregators acting on the market, will help deliver CarbonLink an immediate profile to the global emitters Mr McCosker hopes will be willing to pay for "high-quality carbon" sequestered in soils across Australian grazing properties.

This is despite Federal Agriculture Minister Peter McGauran earlier this



year dismissing the option of farmers selling soil carbon as unworkable without further scientific research.

The basis for that argument is found in studies of cropping lands, with Mr McGauran citing the instability of soil as a medium for storing carbon, given it can be blown or washed away by droughts and floods.

But Mr McCosker said the government studies of cropping lands do not apply to "new grazing systems", such as the cell or rotational grazing programs promoted by RCS.

"The rural sector has got to work pretty hard to get soil carbon on the map," he said. "It's important to get soil carbon up in front of the Government quickly and have it verified."

Under these rotational systems, Mr McCosker says soil structures are far more stable, as they are not disturbed

by ploughing or denuded by overgrazing, and they retain a better quality of pasture, which, in turn, results in lower methane emissions from livestock.

All together, this means soils under cell grazing can sequester atmospheric carbon more quickly than other soil types, and retain it in a more stable environment for longer periods.

Even so, the CarbonLink system builds in a significant margin for error to allow for events such as droughts or floods, with Mr McCosker committed to only selling verifiable, highly stable carbon.

"We don't want to sell carbon that doesn't exist," he said.

Still, the amount of carbon retained in the soil under these new grazing systems increases year-on-year, providing graziers with an ongoing

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stream of sequestered carbon to sell to emitters. Theoretically, this means that people with degraded land who switch to better management systems have the most to gain as they can sharply increase the amount of carbon held in their soils.

But Mr McCosker believes in most cases it will take a change of land manager to implement these changes, thus rewarding people with good environmental skills.

And from early next year these progressive graziers will be able to engage CarbonLink to measure the volume of carbon being sequestered in their soils.

CarbonLink would then act as a carbon aggregator, combining the carbon on offer from various graziers into packages large enough to interest major European or American emitters for a sale through the FEX.

While anyone can act as a broker to sell product on this carbon stock exchange, only two companies, Greening Australia (timber focused) and CarbonLink (soil focused), are currently in a position to act as aggregators and offer the volumes of carbon large emitters will require.

"But this is the two-edged sword for landholders - the carbon is going to be tied to that land for 70 years," Mr McCosker said.

The cashflows generated by the sale of that soil carbon will not only improve farm incomes, but have an immediate impact on rural land values, he said.

● To listen to an excerpt from the interview with Mr McCosker, visit www.farmonline.com.au and follow the links to Queensland Country Life and 'Audio & Video'. More information at www.carbonlink.com.au

Finding the grazing land carbon for sale

BEHIND the headlines of yesterday's launch of the FEX by former US Vice-President Al Gore (pictured), is a complicated but potentially profitable carbon trading system for Queensland's graziers.

It starts with measuring the amount of carbon in the soil on a grazing property, following guidelines used by the Australian Greenhouse Office and approved under the Kyoto Protocol.

On properties that have been using cell grazing, soil scientists take a series

of "paired fenceline samples", in which samples are taken in both a paddock that has been subject to improved management practices, and from a neighbouring paddock that has been grazed with conventional, continuous methods.

This provides an indication of the impact of what changes to soil carbon



have happened since the changes in management for those paddocks, and an indication of what will happen in the future.

From the thousands of samples taken, an average difference in soil carbon levels can then be calculated, giving an indication of how much "new carbon" is being sequestered into the soil each year under the improved management practices, over and above what exists in normal circumstances.

For conventional grazing

properties, where the owner intends to shift to cell grazing, the soil samples give a baseline measure from which to work in future.

Once the on-farm carbon emissions (methane from livestock, fuel from tractors etc) is factored in, the farmer is then left with a net volume of sequestered carbon/hectare/year.

This can then be sold as yearly "carbon vintages", possibly going back as far as 1990, with the value for each vintage varying depending on demand and the credibility of its verification.

CarbonLink is currently testing five properties scattered between southern NSW and Central Queensland, of various environments and business types which have been using cell grazing for roughly a decade, in the hope of having as much as 100,000 tonnes of carbon dioxide ready for sale on the FEX by Christmas.

Not only will this give CarbonLink momentum via key early sales, the samples for different soil types and climates will give the company a handle on the different rates of sequestration.