



# Carbon Grazing

## The Missing Link

**Improving plant & landscape resilience**

**Re-carbonise the soil for profit**

**De-carbonise the atmosphere**

**Reduce methane emissions**

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[www.carbongrazing.com.au](http://www.carbongrazing.com.au)

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Carbon Grazing® is a general principle to maximise the introduction of carbon from the atmosphere into the landscape between the trees. Those who implement Carbon Grazing should enhance their economic return and achieve positive environmental outcomes including methane reduction.

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## CHAPTER 2

# THE CARBON DEBATE IS HERE TO STAY

### THE DEBATE

It is likely that if Al Gore had won the 2000 US Presidential election instead of George W Bush, then the debate regarding carbon's role in climate change would have progressed much earlier.

Climate change is now in everybody's backyard, and there is consensus in most quarters that it is happening. Even large corporations that were formally hostile or ambivalent are now supporting the need for action. What the sceptics dispute, is whether it is caused by greenhouse gases or rather that it is part of a longer cycle. What has made it confusing for many to assess the greenhouse debate is the way the media always likes to present both sides of any debate. While the bulk of the scientific community supported the case for climate change, the media chose to present one case for and one case against. This created a perception of uncertainty. Yet regardless of what is promoted as the cause, rural producers will have to deal with the changes it brings to their production systems.

The sceptics do have a point when they raise the issue that Australia is a young country, in terms of rainfall records, and the present could be just part of a long-term cycle. Coral research indicates that in the 1600s there was a period of 20 years when only one year was normal. Other research indicates that before European settlement, the Tully River did not run one year. On the other hand, there is a lot of evidence to support the case that greenhouse gases are contributing to what we are currently experiencing. It is possible for somebody to carry a gun and a knife, not just one or the other, so we need to consider the ramifications at the times when the two processes combine, ie there have always been cycles of wet and dry, but now there is the potential for more extreme patterns.

Professor Alan Dupont of the Lowy Institute made the following interesting comment:

*"Ironically, while a great deal of the data is no longer disputed, most people do not have a realistic sense of the magnitude of likely future climate change, because scientists have largely failed to communicate the significance of their findings in a way the public can understand.*

*Simply citing mean temperature and sea-level increases does not give a true sense of their importance. A change of even one degree this century would be highly significant, although it doesn't seem much because we routinely experience much greater temperature variations in our lives.*

*It has to be remembered, however, that average global temperatures normally vary by no more than a few tenths of a degree from year to year and decade to decade. More than 2°C takes us into uncharted territory. The Earth was only 5°C cooler during the most recent ice age, when icebergs were common off the Portuguese coast and much of Tasmania was covered in snow and ice."*

Source: Heat building and government ignores danger, The Australian, 13 June 2006

Apart from appealing to the green vote, the Queensland Government's tree-clearing legislation was primarily about carbon emissions and Australia meeting its commitment to Kyoto, even though it had not signed the Kyoto treaty at that point! If it was not for the Queensland tree-clearing legislation, Australia would not have met its Kyoto commitment.

The Wentworth Group, in its blueprints publication series on rebuilding the Australian landscape, highlighted carbon flows as one of the issues which needs to be considered, when discussing the radical changes that need to be made to land use.

The UN's Panel on Climate Change has stated that carbon dioxide levels in the atmosphere have risen by almost one-third since the start of the Industrial Revolution, a period of just 250 years. Now we are being presented with evidence which suggests the rate of increase in atmospheric carbon dioxide is occurring at an increasing rate.

It is ironic that the greenhouse debate is going to be the catalyst for people to realise the true importance of carbon in the landscape. In the process of everybody looking at ways to reduce the amount of carbon dioxide in the atmosphere, there will be an ongoing discussion on where it can be put. Over time, soil will receive more attention. As the debate matures, there will be an increased awareness of all the other positive outcomes of sequestering some of the carbon in the soil.

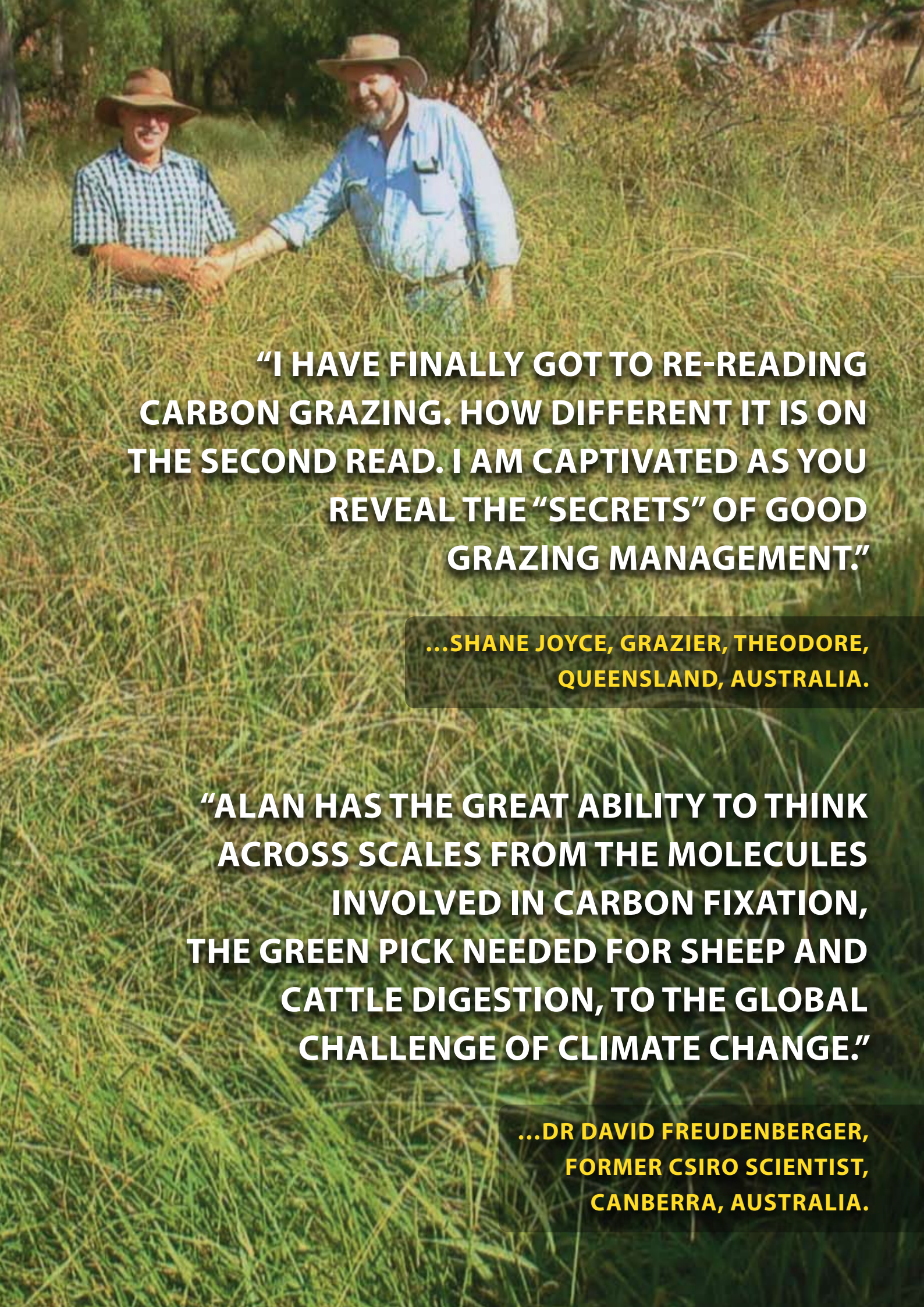
Management consultant Peter Wylie alerted grain growers early on that they were going to hear more about "farming carbon" as time progressed. Carbon is just as important to grazing as it is to cropping. Grazing is all about growing plants, as is cropping.

While rural producers need to understand landscape carbon issues for their own financial security (to increase short-term and long-term production), there are external processes that they will get caught up in, concerning carbon. It will become important that they can represent to the rest of society (the other stakeholders) that they are responsible in this area. As an example, land management and how it impacts on the Great Barrier Reef is already being scrutinised. As the book unfolds, it will become obvious that the level of success of rural producers in their carbon management greatly impacts on the amount of nutrients introduced onto the Great Barrier Reef. Nutrients either stay in the soil where they are needed for production, or end up in rivers and reduce water quality, with all of its associated negative outcomes. The solution to reducing the flow of nutrients into the rivers is as simple as attending to correct pasture management, as carbon holds nutrients.

## **INCREASED INTEREST IN SOIL CARBON**

Fortunately the soil carbon issue is now starting to gather momentum, at least in some quarters, with rural producers attending forums to better understand the issue. While there are an increasing number of rural producers placing more importance on soil carbon, the soil carbon issue in general is not a debate that has matured and still has a long way to go. The debate over soil carbon credits is at a stage where a little bit of knowledge may be dangerous in the wrong hands. As a legal contract, there will be the need for transparency and quantification for maybe seventy to one hundred years.

It is imperative that the discussion advances past the simplistic "trees-only" solution, and here government needs to take the lead in convincing rural producers that good carbon management leads to increased profits. This way, governments can achieve positive environmental outcomes for the other stakeholders in society, including greenhouse outcomes, at no cost to rural producers.



**“I HAVE FINALLY GOT TO RE-READING CARBON GRAZING. HOW DIFFERENT IT IS ON THE SECOND READ. I AM CAPTIVATED AS YOU REVEAL THE “SECRETS” OF GOOD GRAZING MANAGEMENT.”**

**...SHANE JOYCE, GRAZIER, THEODORE, QUEENSLAND, AUSTRALIA.**

**“ALAN HAS THE GREAT ABILITY TO THINK ACROSS SCALES FROM THE MOLECULES INVOLVED IN CARBON FIXATION, THE GREEN PICK NEEDED FOR SHEEP AND CATTLE DIGESTION, TO THE GLOBAL CHALLENGE OF CLIMATE CHANGE.”**

**...DR DAVID FREUDENBERGER, FORMER CSIRO SCIENTIST, CANBERRA, AUSTRALIA.**