

Climate Change Research Program

Australia's Farming Future

Research Case Study

Primary Industries Master Class heads to Lansdown

“Through the RELRP, we’ve found that we can reduce methane emissions through feeding and management practices.”

Dr Ed Charmley -
CSIRO

A group of researchers, farmers, consultants and policy makers in primary industries visited Townsville in April to learn about the impact of climate change on the beef, sugar and horticulture industries in the region.

The Primary Industries Adaptation Research Network (PIARN) Master Class focuses on understanding how primary industries can adapt to changes in the climate, respond to significant weather events and work in harmony with significant ecosystems.

At the Master Class, participants spent a day at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Lansdown Research Station; one of five national demonstration sites established through the Department of Agriculture, Fisheries and Forestry's (DAFF) Climate Change Research Program (CCRP).

Master Class participants heard from key researchers at the Lansdown site including CSIRO's Dr Ed Charmley, Research Program Leader at Lansdown and Queensland University of Technology's Associate Professor Beverley Henry.



Dr Charmley provided an overview of the Lansdown research site and the Reducing Emissions from Livestock Research Program (RELRP), which is funded by DAFF as part of the CCRP (see above image).

“The research at Lansdown feeds into a methane emissions map for the whole country specifically looking at how methane emissions from livestock in extensive grazing systems can be measured and managed,” Dr Charmley said.

“Through the RELRP, we’ve found that we can reduce methane emissions through feeding and management practices.”

“By monitoring animal movement, grazing behaviour, methane emissions and pasture characteristics, we can build a complete picture of the animal and their environments which will help cattle producers achieve improved animal health and productivity and lower methane emissions.”

Participants toured the Lansdown site and methane measurement chambers to understand the system from chamber to paddock scale.

Holbrook, NSW Angus producer, Lucinda Corrigan, said it was good for researchers and farmers not familiar with farming in this tropical environment to hear the differences between northern and southern beef production systems.

“The difference between northern and southern systems starts with the biological functioning of the *Bos indicus* female in the north. What we saw at Lansdown is the research and development to inform producers in a tropical environment,” said Lucinda Corrigan.

“It was fascinating to see the paddock and laboratory-scale work in the animal house, which are quantifying emissions in *Bos indicus* cattle. The results of these studies will provide the information for producers to improve productivity and reduce emissions in the future,” said Ms Corrigan.

North Queensland beef producer Roger Landsberg and his partner Jenny own and manage the family property ‘Trafalgar’ 60 kms southwest of Charters Towers and he spoke with the PIARN group at Lansdown.

A third generation beef producer, Mr Landsberg is passionate about sustainable management and has been a keen advocate in this field since 1986. As the inaugural chairman of Dalrymple Landcare Committee, the first Landcare committee in an extensive grazing area in Australia and subsequent sub-catchment groups, Mr Landsberg and others set about identifying solutions to land degradation issues in North QLD.

Mr Landsberg has trialled and adopted many management practices that have led to increased production benefits with improved environmental outcomes.



Dr Ed Charmley from CSIRO presenting on RELRP to the PIARN Master Class

“At Trafalgar, we are continuing to improve herd productivity, while improving bio-diversity outcomes and reducing CO₂ emissions while remaining profitable — a challenging juggling act,” Mr Landsberg said.

“Producing beef in a competitive global market with increasing cost and regulatory pressures is increasingly challenging due to consumer and community demands for increased food safety and improved environmental management.”

“This is compounded by the fact that north eastern Australia has some of the most variable climate on the planet and the Burdekin is a Great Barrier Reef catchment, with associated down-stream responsibilities.

“Having the group of researchers and farmers come to Lansdown really gives people a good perspective on the environment we are working in. It was a pleasure to be able to talk about a number environmental and production gains we’ve worked hard on to achieve,” said Mr Landsberg.



The PIARN Master Class is funded by the National Climate Change Adaptation Research Facility (NCCARF).

Australia’s Farming Future:

Climate Change Research Program

Brahman breeds whose emissions are being measured as part of the RELRP at Townsville.

The Australian Government’s Australia’s Farming Future: Climate Change Research Program is a significant research effort aimed at providing practical solutions for our primary industries to adapt to the changing climate. The Climate Change Research Program (CCRP) has provided funding for research projects and on-farm demonstration activities under the three priority areas of reducing greenhouse gas emissions, improving soil management and research into adaptation management practices.

The CCRP has laid the vital groundwork for further research, demonstration and extension that will now occur through the Australian Government’s \$429 million Carbon Farming Futures Program.

For further information on the CCRP or any of the funded projects, please phone 1800 638 746 or visit www.daff.gov.au/aff.

This case study is part of a series produced by the Department of Agriculture, Fisheries and Forestry as part of the Climate Change Research Program.