

**Senate Rural and Regional Affairs and Transport Legislation Committee**  
ANSWERS TO QUESTIONS ON NOTICE  
Supplementary Budget Estimates October 2009  
**Agriculture, Fisheries and Forestry**

**Question:** CC 45

**Division/Agency:** Climate Change Division  
**Topic:** Practical measures to reduce farm emissions  
**Hansard Page:** Written

**Senator Nash asked:**

What practical measures are the government telling farmers can be taken by primary producers at the farm level to reduce emissions?

**Answer:**

The department is investigating emissions reduction technologies and practices through the Climate Change Research Program. This research will provide farmers with practical management options that reduce emissions based on sound science.

**Question:** CC 46

**Division/Agency:** Climate Change Division  
**Topic:** Practical measures to reduce farm emissions  
**Hansard Page:** Written

**Senator Nash asked:**

What are these measures (please provide a list, including the main benefits and/or problems surrounding implementation, the cost of successfully implementing each measure and the estimate carbon reductions that can be achieved by implementing each measure)?

**Answer:**

The Australian Government has committed \$46.2 million for the Climate Change Research Program under Australia's Farming Future to provide the tools and information to help Australia's primary industries reduce emissions and adapt to climate change. Research projects are in the early stages, having commenced in the first half of 2009.

Research priorities for the program are reducing greenhouse gas pollution, better soil management and adapting to a changing climate.

To date \$26.9 million has been approved for research into reducing emissions from livestock, nitrous oxide, soil carbon and biochar. The CCRP funding is supplemented by funds from research organisations and industry bodies.

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**Question:** CC 47

**Division/Agency:** Climate Change Division  
**Topic:** Practical measures to reduce farm emissions  
**Hansard Page:** Written

**Senator Nash asked:**

What support/grants/funding/training is available to farmers to undertake these initiatives?

**Answer:**

The FarmReady program provides grants for primary producers, Indigenous land managers and industry groups to develop strategies to adapt and respond to the impacts of climate change.

**Question:** CC 48

**Division/Agency:** Climate Change Division  
**Topic:** Practical measures to reduce farm emissions  
**Hansard Page:** Written

**Senator Nash asked:**

Is the Department concerned about any schemes being promoted to farmers to reduce their carbon footprint, provide carbon sinks or offsets?

**Answer:**

The range of industry tools currently available to calculate a farm's carbon footprint can be valuable in providing an estimation of farm greenhouse gas emissions and assisting farmers to understand the impact of changing farm practices. They can increase farmers understanding of their emissions.

The Department of Climate Change has previously provided advice to farmers regarding issues to be considered when participating in voluntary carbon markets.

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**Question:** CC 49

**Division/Agency:** Climate Change Division  
**Topic:** Practical measures to reduce farm emissions  
**Hansard Page:** Written

**Senator Nash asked:**

How are the benefits of these measures benchmarked? i.e. how are the emissions measured and accounted for? Can they actually be accounted for?

**Answer:**

The Department of Climate Change is developing the National Carbon Offset Standard. The Standard will provide guidance on what constitutes a genuine, additional voluntary offset, will set minimum requirements for the verification and retirement of voluntary carbon credits and provide guidance for calculating the carbon footprint of an organisation or product for the purpose of achieving ‘carbon neutrality’.

**Question:** CC 50

**Division /Agency:** Climate Change Division  
**Topic:** Estimation of agricultural emissions  
**Hansard Page:** Written

**Senator Nash asked:**

How will the government work out the emissions on a livestock enterprise, a mixed farming operation or grain growing enterprise?

**Answer:**

Australia’s agricultural emissions are estimated at the national level in accordance with the Intergovernmental Panel on Climate Change guidelines. Australia’s methods are based on international default emission factors, country specific emission factors or modelled land systems using peer reviewed data and methodologies. The methods and data are subject to ongoing improvement, including through collection of data at farm and regional scales.

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Supplementary Budget Estimates October 2009  
**Agriculture, Fisheries and Forestry**

**Question:** CC 51

**Division/Agency:** Climate Change Division

**Topic:** Emissions from livestock

**Hansard Page:** Written

**Senator Nash asked:**

Is it not a fact that emissions released by livestock are a natural occurrence and part of a natural cycle?

**Answer:**

The introduction of commercial farming systems, nitrogen fertiliser and livestock, the greenhouse gas emissions profile of Australia has changed dramatically over the past 200 years. These changes are therefore considered anthropogenic and thus part of Australia's National Greenhouse Gas Inventory.

Although livestock is consuming vegetation that has sequestered carbon, the process of digestion increases the global warming potential of that carbon by converting it to methane. Methane is created as part of the digestion process, particularly from ruminant livestock.

**Question:** CC 52

**Division/Agency:** Climate Change Division

**Topic:** Reduction in livestock emissions

**Hansard Page:** Written

**Senator Nash asked:**

Is it not a fact that the only industry to have reduced its emissions footprint is the red meat livestock industry, which has seen sheep and cattle numbers drop to the lowest level in also a century?

**Answer:**

Based on "the National Greenhouse Gas Inventory accounting for the Kyoto target May 2009" livestock related emissions have declined by 7.5 per cent (4.9 Mt) between 1990 and 2007. The decline in emissions has principally been driven by a 50.7 per cent fall in sheep numbers, although partially offset by a 13.9 per cent rise in beef cattle numbers, reflecting changing relative returns to each industry. Since 2002 many animal populations have been declining in response to the prolonged drought

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Supplementary Budget Estimates October 2009

**Agriculture, Fisheries and Forestry**

conditions which have occurred over extensive areas of southern and eastern Australia.

However, an increase in meat production, improvements in management practices, production efficiencies and changes in livestock numbers have all contributed towards reducing the red meat livestock greenhouse gas emissions footprint.