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Committee Secretary
Standing Committee on Primary Industries and Resources
House of Representatives
PO Box 6021
Parliament House
CANBERRA ACT 2600

Date: 17th March 2009

To whom it may concern

RE: Submission on the role of government in assisting Australian farmers to adapt to the impacts of climate change.

This submission is made on behalf of Dairy Australia Ltd and Australian Dairy Farmers Ltd.

Australian Dairy Farmers (ADF) is the national voice of Australia's dairy farmers. ADF is a not-for-profit organisation which provides strong industry leadership and representation for the continued growth of internationally competitive, innovative and sustainable dairy farm businesses. ADF is formed by the six State dairy farmer organisations: NSW Farmers' Association - Dairy Committee, Queensland Dairyfarmers' Organisation, South Australian Dairyfarmers' Association, Tasmanian Farmers & Graziers Association - Dairy Council, Victorian Farmers Federation - United Dairyfarmers of Victoria and Western Australian Farmers' Federation - Dairy Council.

Dairy Australia is a Rural Research and Development Corporation which invests \$30 million of Dairy Service Levy payments and \$15 million of taxpayer funds in a range of services for the Australian dairy industry that are not provided elsewhere.

The enclosed submission reflects the fact the Australian dairy industry has already put considerable effort into preparing the industry for climate change on the basis that adaptation of farming systems to climate change is the industry's highest and most urgent priority.

Thank you for the opportunity to contribute to the inquiry by the House of Representatives Primary Industries and Resources Standing Committee.

Yours faithfully



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Australian Dairy Industry

input to the

House of Representatives Primary Industry &
Resources Standing Committee

**Inquiry into the role of government in assisting
Australian farmers adapt to the impacts of
climate change.**

Australian Dairy Farmers Ltd
Dairy Australia

Committee Secretary
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Summary

The Australian dairy industry has a good history of being able to adapt to challenges such as prolonged drought whilst continuing to produce significant export earnings. This experience will assist the industry meet future challenges. But the challenges of climate change and associated mitigation policy is already affecting the industry and is much more multifaceted than previous challenges

To plan for these challenges the dairy industry is implementing a project to build industry confidence in the future by identifying areas of opportunity as well building industry understanding of potential shocks. Issues associated with climate change and mitigation are impacting so rapidly the industry will need extra government support to respond effectively and quickly.

Future research and development will require far greater focus on identifying flexible systems that can change rapidly in response to changing physical, economic and social conditions. In particular the management practices and policies needed to enable dairy farming and processing systems to operate in a more complex and uncertain environment.

At this stage the dairy industry does not have all the answers or the technologies that might be needed and government assistance is required to address market failures in RD&E in four key areas.

1. Development of appropriate decision making skills and tools that will build the ability of farmers to identify and analyse potential costs, benefits and risks;
2. Identification of processes and technologies that support flexibility to change the farming system in response to seasonal and market conditions;
3. Development and maintenance of community knowledge, information and social networks to support resilient farming systems;
4. Capturing, fostering and sharing innovation knowledge

There is also a need for government assistance to support research into the potential for the proposed CPRS to result in maladaptive strategies. As an industry we need to understand a range of issues including where carbon reduction signals, profit signals and climate change adaptation signals are additive, through to where they are clearly competitive.

Terms of Reference

- **Current and prospective adaptations to the impacts of climate change on agriculture and the potential impacts on downstream processing.**

The Australian dairy industry has a good history of being able to adapt to challenges such as de-regulation and prolonged drought and this experience will assist us meet future challenges. But the challenge of climate change and associated mitigation policy is impacting quickly and is much more multifaceted than previous challenges. The whole value chain will be affected from farm businesses through to dairy manufacturers.

To plan for these challenges the dairy industry is implementing a project to build industry confidence in the future. This dairy industry resilience project, "Confidence to Grow" will underpin industry confidence in the future by:

- Positioning the industry at the forefront of climate change preparedness and enable a focus on capturing the opportunities rather than just responding to the challenges;
- Building an understanding of the potential shocks that climate change may deliver to the dairy industry (from individual farmers through to international and marketing issues) and assess the likely impacts;
- Determining the relative vulnerability of different dairy farming systems, different regions and different elements of the dairy industry value chain, and any likely changes in relative international competitiveness;
- Specifically identifying and acting on the needs of different segments of the farming community;
- Exploring ways that increased resilience might be built into the dairy industry value chain to both avoid problems and to capture new opportunities;
- Adding 'resilience' to industry thinking without undermining our traditionally strong focus on profit, sustainability, satisfaction, and international competitiveness; and
- Constantly engaging with the latest climate change predictions, both nationally and regionally and therefore deliver useful support and products that assist all segments of the industry value chain make informed investment decisions.

(Attachment 1)

We have huge complexity in dairy farming systems across the country, so that even though as an industry we have identified individual adaptation activities that are very suitable in some regions or for some dairy farming systems, there is no generic action that is suitable everywhere.

There are a number of operational adaptations to increased climate variability already being adopted by dairy farmers such as water trading; forward purchasing of grain, substitution of grain and other feeds for water and pasture; increased use of fertilisers and automation of irrigation. Many of these adaptation options have been captured and articulated in the dairy industry Regional Climate Change Fact Sheets (Attachment 2).

These tactical adaptations are useful but they generally represent adjustments to existing farming systems rather than the adoption of innovative, flexible systems that will provide on-going resilience.

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Future research and development will require a much greater focus on identifying the management practices and policies needed to enable dairy farming and processing systems to change rapidly in response to changing physical, economic and social conditions.

At this stage the dairy industry does not have all the answers or the technologies that might be needed. Whilst the outcomes from "Confidence to Grow" will provide ideas for areas where industry R&D focus should be directed, on-going research and extension is needed to test and disseminate these new ideas and technologies. To respond effectively the dairy industry must move quickly and to do this industry will need extra government support.

There is also poor understanding of how increased climate variability and milk price volatility may impact on the location and intensity of dairy farming systems. The future location of dairy will have flow on impacts on processing and irrigation assets and the viability of associated regional communities.

Impact of mitigation policy on industry adaptation to climate change

Dairy industry adjustment to mitigation policy will require a whole of value chain approach. A nationally based emissions trading scheme, in the absence of a global agreement, has real risks for the viability of the Australian dairy industry and the regional communities it supports. This will be particularly the case if trade exposed Australian dairy manufacturing firms face greater obligations than their international competitors. **One of the most important activities the Australian Government can do is to get the Carbon Pollution Reduction Scheme (CPRS) right.** To do this it will need to consult more with industries like dairy than it has to date.

Farmers will adapt to the bio-physical impacts of climate change, and both industry and government can effectively assist farmers adapt because there is time for that adaptation capability to spread across the industry. However, farmer adaptation to the impacts of the CPRS will be very different.

The dairy industry needs the Australian Government to recognise that dairy manufacturers will be caught up at the commencement of the scheme in July 2010. They will have little option but to pass on substantial additional costs through to the farmer as the ability of dairy companies to pass on carbon costs to the consumer is very limited.

There is a requirement for research to understand the potential for the CPRS to result in maladaptive strategies and unintended consequences. As an industry we need to understand a range of issues including where carbon reduction signals, profit signals and climate change adaptation signals are additive, through to where they are clearly competitive, and how farmers might manage any necessary trade-offs.

Terms of Reference

The role of government in;

- **Augmenting the shift towards farming practices which promote resilience in the farm sector in the face of climate change.**
- **Promoting research, extension and training which assist the farm sector to better adapt to climate change.**

The vulnerability of dairy farming to climate change will depend on the capacity of dairy farmers to operate flexible farming systems that will allow them to adjust proactively or reactively as the physical and business environment dictates. Developing this capacity will require dairy farmers to have access to the best possible tools and knowledge to enable informed decision making in an increasingly uncertain environment.

Without assistance from government and industry it will be very hard for dairy farmers to develop their capacity to operate flexible farming systems and make sense of the complexities and uncertainties associated with climate change. Experience in northern Victoria where the drought has been prolonged suggests 'lack of certainty' has the potential to lead to inaction, poor decision making and inefficient allocation of resources.

The government has a key role in assisting research, extension and training in four key areas:

1. **Development of appropriate decision making skills and tools that will build the ability of farmers to identify and analyse potential costs, benefits and risks;**
2. **Identification of processes that support flexibility to change the farming system in response to seasonal and market conditions;**
3. **Development and maintenance of community knowledge, information and social networks to support resilient farming systems;**
4. **Capturing, fostering and sharing innovation knowledge.**

1. Decision making skills and tools: Farmers make better decisions when they feel 'skilled' and confident. Currently the dairy industry has no structured mechanism for assisting farmers to understand climate change adaptation and emissions mitigation and 'analyse' their individual situation so that strategically they know 'what is the next best activity to adopt on their farm?' We need to build the confidence to make good decisions as well as the strategic and the tactical capability.

Analysis of adaptation options will require new decision making tools that can enable an integrated assessment of bio-physical, economic and social factors across the value chain. Existing industry tools tend to focus on biophysical factors separately from the economic factors and the decision making process.

Traditional delivery mechanisms such as discussion groups have become less attractive to farmers and we need to understand why this is happening – for example, is it because the issues farmers are facing are more complex than 'general' extension can deal with? We can then use this understanding to design and implement improved extension systems specifically for building dairy industry

resilience. These systems can be based on commercial reality and not government handouts, but government and industry should work together to support the required community building and local action.

2. Processes that support flexibility to change the farming system: Studies of South Australian farmers who had successfully adapted to low rainfall conditions over the last five years found the critical factor was the flexibility to change the system in response to market and season. To date there has been no research into dairy systems that support major shifts in enterprise and feedbase mix. For example there are currently no strategies that have been explored to cost effectively vary cow numbers between years, and yet this would offer a major boost to the flexibility of dairy farming systems, enabling farmers to respond to both increased climate variability and milk price volatility.

3. Community based knowledge and social networks to support resilient systems: Resilient farms support local communities, but equally, resilient local communities make it easier for farmers to adjust. To support local action we need a better understanding of the factors operating at a community and social level that enhance resilience. We can develop resilient systems but these systems will break down if the social and knowledge networks supporting them break down. Implementing activities that support local action and local knowledge networks are more likely to deliver sustainable improvements/sustainable adaptation to climate change than generic industry activities.

4. Capturing and fostering innovation: Australian dairy farms have always been prime sources of innovation and this will continue. Government can work more effectively with industry to encourage and capture farmer and dairy manufacturer innovation more effectively than we have in the past. Some farmers and dairy manufacturers are adapting more quickly than others and there are lessons available there. As we move into new ways of operating we should ensure government, industry and educational programs capture existing innovation and build greater opportunities for farmer driven research, and farmer driven sharing of the lessons and the skills.