



## ***Food Policy and the Environment Bridging the Gap***

***An agricultural perspective***



This document provides a summary of the presentations and discussion which took place at a workshop organised collaboratively by Horticulture Australia Limited, the Australian Egg Corporation and Meat and Livestock Australia at the offices of Horticulture Australia Limited on 13 February 2009.

For more information please contact:



*Know-how for Horticulture™*

Sarah Pennell

Ph: (02) 8295 2330

[sarah.pennell@horticulture.com.au](mailto:sarah.pennell@horticulture.com.au)



James Kellaway

Ph: (02) 9409 6999

[james@aecl.org](mailto:james@aecl.org)



Véronique Droulez

Ph: (02) 9463 9239

[vdroulez@mla.com.au](mailto:vdroulez@mla.com.au)

## ***Food Policy and the Environment - Bridging the Gap***

### ***An agricultural perspective***

#### ***Introduction***

The recent workshop - ***Food policy and the Environment - Bridging the Gap*** - provided a unique starting point for building relationships between agriculture, food policy and environmental interests.

This was a collaborative activity between Horticulture Australia Limited, the Australian Egg Corporation and Meat & Livestock Australia designed to discuss their respective forms of agricultural production in Australia – cropping (horticulture), intensive (egg) and extensive (red meat) in terms of sustainability and affordability. It is the first time that producer organizations have collaborated in this way.

Food, nutrition and health are influenced by many sectors. The challenge of working across these sectors, in order to develop a food policy, is the need to understand other viewpoints so that a common language and perspective on relevant issues can be achieved.

The purpose of the meeting, therefore, was to provide a constructive environment for professionals, who might not normally have the occasion to collaborate, to exchange information and discuss issues relating food production from an economic, environmental and social perspective.

The meeting brought together a range of individuals representing agricultural producers, government and non-government health organizations, public health interest groups and health professionals (see Appendix for list of attendees).

Agriculturalist and broadcaster, Neil Inall chaired the day's proceedings which included presentations and discussion. Presentation topics included an overview of each industry; industry environmental programs; the potential impact of climate change on food production in Australia; production methods and issues by producers; and the economic drivers of Australian food production. Presentations were followed by a discussion facilitated by Michael Williams. The discussion examined issues from a variety of viewpoints in an attempt to consider the challenges of food production, productivity and environmental sustainability within the framework of improved public health outcomes.

This meeting provided a first step for all involved to consider the potential merits of holding further discussions. Overwhelmingly the participants found the meeting worthwhile. It was agreed that further meetings should be organized to consider how agriculture, environment and public health can continue to work towards a common goal. It was agreed that a food policy for Australia provided just such a common goal.

The following document provides a short summary of each presentation and summarizes key points from the discussion. Copies of the presentations are available from the Australian Egg Corporation ([www.aecl.org](http://www.aecl.org)), Horticulture Australia Limited ([www.horticulture.com.au](http://www.horticulture.com.au)) and Meat and Livestock Australia ([www.redmeatandnutrition.com.au](http://www.redmeatandnutrition.com.au)) websites.

## ***Consequence of climate change on fresh food production in Australia***

***CSIRO Sustainable Ecosystems – Climate Impact Scientist – Dr Steve Crimp***

The issue of food security is highly complex with a huge number of drivers centering on the components of availability, accessibility, use and stability. Historically the demand for crops has been interplay between human and livestock consumption needs. More recently the demand for bio-fuels has been introduced to the mix.

Over the past 50 years crop yields have more than doubled due to improved management practices, technology and genetics and by 2050 yields will have to double again to match projected demand.

Currently the rate of increase is slowing and it is anticipated that, without major new innovations, production may only increase by 15% by 2030. There is a real need for new technologies as well as improved management and production efficiencies to achieve the anticipated 2050 production rate.

Increasing production costs, declining availability of inputs such as energy, nitrogen and phosphorous, growing pest and disease resistance, the impact of climate change and land availability are all exerting negative pressure on global production. In a positive sense however increasing CO<sub>2</sub> concentrations are likely to have a beneficial impact on crop yields and this, combined with the potential of GMO and other technologies, may assist in lifting overall crop yields.

Climate change has already impacted on global production with a result that rain fed crops such as wheat; maize and barley are likely to be more sensitive to warming than some other crops. In Australia it is likely that climate change will cause regional shifts in production. If CO<sub>2</sub> doubles and temperatures increase by 3° it is likely that grain production will be pushed further west, however when a declining rainfall is taken into account, the production area actually contracts east into the higher rainfall zone.

In a global sense there will be winners and losers in the climate change scenario with crop production likely to decline in the tropics and subtropics and increase in the mid -to high northern latitude regions.

The speed of climate change will force producers to adopt new management approaches. More investment will be required in the genetics and management areas to address declining yields. There will also be increasing competition between urban, rural and environmental demands for water leading to reduced availability of water for agricultural crops. Producers will also require further improvements in on-farm efficiencies and technological advances in order to meet the challenges of increasing input costs.

## ***Egg, Horticulture and Red Meat in context***

### ***Australian Egg Corporation Limited - Managing Director - James Kellaway***

The Australian industry comprises 440 commercial egg producers responsible for the production of 3.887 billion eggs with a value of \$512 million. The industry comprises a few large companies and many small ones with the top 20 producers representing 80% of the 19.7 million hens currently in production.

New housing and product technology have been applied by larger operators while niche market opportunities have been taken up by smaller specialised egg producers. The key identified priorities for the industry are animal welfare including flock health, disease management and nutrition, environmental sustainability, building demand and food safety.

### ***Horticulture Australia Limited - General Manager Professional Services - Sarah Pennell***

Australian horticulture takes into account a range of industry sectors including fruits, vegetables, nursery, nuts and dried fruit and has an overall value of \$8.3 billion. Throughout Australia production involves some 25,000 enterprises employing 108,000 people and accounting for one in four jobs in agriculture. The challenges for the industry include natural resource availability and management, increasing production, increasing imports and global competition in export markets, market access and meeting the changing needs of consumers. Horticulture Australia Limited (HAL) is an industry owned organisation funded by producer levies and government matched research and development funding.

The organisation funds marketing and R&D projects throughout the supply chain HAL has an average of 1,400 projects on behalf of growers and invests \$80 million annually

### ***Meat & Livestock Australia - General Manager LPI - Ian Johnsson***

MLA is a producer owned organisation funded by industry levies and government matched research and development funding. The organisation provides marketing and R&D services throughout the supply chain to livestock producers, meat processors, exporters, retailers and food service operators. The industry is valued at \$15.8 billion and production takes place on 134,000 properties (cattle - 87,000 and sheep meat - 47,000 properties) where production has adapted to regional climatic and geographic conditions. Grain finishing (typically 40 to 120 days) after at least 18 months grazing on pasture is driven by the need for consistent eating quality, regardless of season. The key issues for the red meat industry are environmental sustainability, cost of production, food safety and market access.

## ***What are these industries doing about their environmental challenges?***

### ***Angus Crossan - Program Manager – R&D - Australian Egg Corporation Limited***

The egg industry faces a range of environmental threats to production with the key identified issues including odour, noise, visual impact, waste water and water supply, vermin control, disease and waste management. The industry is working cooperatively to accurately identify its environmental impact and to implement measures that allow it to continually improve the environmental performance of producers. Environmental guidelines are being developed and will be incorporated into the Egg Corporation Assured program. The overall approach of the industry is to develop innovative and practical solutions, including site-specific assessment and measurement through Life Cycle Analysis in order to minimise its environmental impact.

### ***Alison Turnbull - Natural Resources and Climate Manager - Horticulture Australia Limited***

Australia's horticultural industries have worked to better understand the environmental impact of their operations in order to achieve recognition as a good environmental steward. A range of industry specific and national initiatives have been undertaken in the areas of irrigation, soil, environmental management systems, reuse, post-harvest and climate change. Within the scope of its operations HAL has six key themes of understanding future climates, managing emissions, preparing industries, accessing information, facilitating change and linking decision-makers. This approach is directed at better understanding the current situation, establishing what it means for producers and providing them with options to prepare for climate change and to mitigate the overall impact of production.

### ***Beverley Henry - Manager Environment, Sustainability and Climate Change - Meat & Livestock Australia***

Meat and Livestock Australia is working to improve the environmental performance by examining all aspects of the grazing system in looking at sustainability from the paddock to the plate. This takes in issues ranging from rainfall and temperature; through to water and nitrogen uptake in plants; the impact of fire; drainage and infiltration; and the availability of soil water and nitrogen. MLA has implemented a range of programs such as Grazing Land Management in order to educate producers, management of stocking rates and pasture, while other programs such as Grain & Graze are directed at managing the environmental productivity of mixed farming systems. A key issue of managing emissions from red meat production is being addressed through an on-farm research and development program aimed at accurately monitoring emissions and providing options for their management.

## *Case studies from the egg, horticulture and red meat industries*

### ***Lawrie Coutts - National Farm Manager - Farm Pride Foods Ltd***

The two basic production methods used today are caged production and non-cage production (free range and barn). While cage production provides a high level of management and is environmentally friendlier with lower production costs, it has a negative public perception. In comparison non-cage production has a more positive public perception and higher profit margins; however this approach creates a more competitive environment for the animals with higher production costs and greater prevalence of disease. In terms of environmental management, producers are already addressing the following issues: reusable packing; manure drying and storage; water catchment; end of lay hens; carton manufacturing and alternative production units.

### ***Peter Darley – New South Wales Apple Grower***

Farming operations have changed substantially in the last 50 years. In the mid 1960's an orchard of 4,500 apple trees was able to support two families and two workers. Higher costs of production and changes in consumer demand for different varieties has seen the operation change to 22,000 smaller trees with production increased from 25t/ha to around 5,000t/ha on the same area. The change in climatic conditions has seen diminished winter rain, increased summer storms and hail and snow all impacting on production. Without access to a river, all irrigation water is stored on-farm. A major concern in horticultural production – particularly in coastal areas - is that of land use planning, with production areas now impacted by urban sprawl and the resultant complaints about spray drift, hail netting structures.

### ***Roger Landsberg - Northern Queensland Cattle Producer***

A range of natural resource management and stock management approaches have been adopted in order to manage the property effectively. Grazing land management including paddock spelling, conservative stocking, riparian zone management, conservative use of fire, weed control and selective pasture development has increased productivity, improved water quality and environmental health and the biodiversity of the property. Appropriate stock management of breeders, weaners and steers has maintained production levels and improved meat quality while at the same time reducing methane emissions and improving biodiversity. In overall terms effective management allows the productive use of northern pastoral ecosystems in an environmentally sustainable manner.

## ***Factors that influence the retail price of fresh foods***

***Charles McElhone - Manager Economics and Trade - National Farmers Federation***

Factors that impact on the price of food in Australia vary according to sector and include marketplace exposure and competition (both international and domestic), global commodity prices, pricing mechanisms, quality variability, length of supply chains and consumer demand. Global commodity prices are driven by the exchange rate, seasonality of production and the dynamics of the retail market, import competition, input costs, market concentration and increasing consumer demand. Meeting changing consumer demands in areas such as animal welfare, environmental sustainability and traceability all inevitably add to the cost of production and therefore impact the price. To remain competitive producers must be aware of all these drivers and be responsive to the marketplace.

## ***Key points from facilitated discussion***

In facilitating the discussion it was suggested to the group that it consider three things:

1. The key messages from the presentations in terms of the relationship between agriculture, food policy and the environment.
  2. The implications for the different sectors and how necessary bridges can be created between them.
  3. The common goals that might justify turning the meeting into an ongoing dialogue.
- The following report summarises key points raised during the discussion.

### ***Overview***

There was overwhelming consensus that holding the meeting was beneficial. Bringing together the key stakeholders involved in the Australian food supply was considered a valuable step forward.

It was agreed that the meeting provided an opportunity for information sharing and dialogue between the different disciplines. The fact that public health and primary industry were coming together was regarded as somewhat of a first.

There was an appreciation from the public health participants of the opportunity to learn more about Australian primary food production. It was agreed that public health rarely had the opportunity to engage directly with the primary production sector.

Of particular interest was the opportunity to hear from actual producers and the organisations that work with them. Whilst manufactured foods were an important part of the food supply, it was observed that it was useful to discuss the very different environmental, social and economic issues facing Australian primary industries.

### ***Perspectives***

The meeting highlighted how the same terms may have different meanings in the public health, agriculture and environmental sectors. It was acknowledged that, without a common language and understanding of the issues, there was a risk of miscommunication.

For example, productivity and food security appeared to have different meanings for different audiences. For agriculture, productivity was about maintaining viability into the future. Concerns surrounding productivity included variable yields, lack of skilled labour, increasing input costs, climate change, growing competition and diminishing profit margins.

From the producers' perspective natural resource management and environmental sustainability were considered an integral part of improving productivity to ensure the long term sustainability of the industry. Producers were constantly managing weeds and pests to improve productivity and at the same time, playing an important environmental stewardship role. Consequently, producers considered that productivity gains would lead to public health and community benefits. It was pointed out that, to have a good productive system, a healthy community was vital too.

For the public health sector, there were concerns that discussions on productivity neglected to consider the distribution of food. Agriculture discussed food security in terms of food per capita and productivity in terms of volumes of food produced. Whilst increasing production was important, equally important were issues of social justice and equity. It was pointed out that whilst in Australia there were health issues associated with over nutrition, there were still segments of the population suffering from malnutrition. Equal and easy access to affordable and nutritious food was a key concern for public health. Consequently, public health would prefer a measure of food security which indicated who was going without food and who was getting too much.

There were also concerns that the producer's emphasis on increasing production volumes may not be consistent with public health goals. There was interest in understanding the real cost of producing food which may not be reflected in the market place. In particular, what effect various policy and market forces have on the social, economic, environmental and nutritional aspects of food.

It was suggested, therefore, that clarification needed to be sought on the benefit to public health and sustainability of R&D efforts to improve productivity.

From an economic point of view, it was noted that productivity was about focusing on the need to be profitable and at the same time sustainable. It was about making sure the market signals were right for farmers so they were paid appropriately for meeting consumer needs.

It was observed that in Australia, the focus should not only be on the domestic consumer, but also export customers as we export two thirds of all agricultural production.

It was therefore recommended that future discussions be based around themes such as productivity, sustainability, health and equity to allow the opportunity for exploration of the topics from the perspectives of different stakeholders.

### ***Food Policy***

It was acknowledged that consideration was required on the challenges posed for food production by climate change. However, whilst the impact of climate change on food production was the trigger for the meeting, participants noted that ongoing discussion should broaden out to embrace aspects in the mix, particularly health. It was suggested that future discussion might investigate which dietary practices would enhance environmental sustainability within the Australian context. Future meetings could consider issues of public health importance such as the metabolic disease epidemic, misdistribution of food resources and the impact of global trade in agricultural commodities e.g. for bio-fuels. In doing this, it was believed, agriculture could learn more about public health.

*Food Matters*, an initiative from the Prime Minister's office in the United Kingdom, was cited as an example of how a range of issues that influence health could be considered through the common lens of food.

Everyone agreed that there was an urgent need for an overarching national food and nutrition policy. It was noted that currently Australia does not have a food policy. The dietary guidelines, which were currently under review, were a set of evidence-based messages for health professionals and the general public on what to eat. The new guidelines would incorporate issues of environmental sustainability, social Justice and equity so that dietary messages would contribute to achieving improved nutrition, environmental sustainability and social justice at the same time as addressing health outcomes. It was agreed, however, that this did not constitute a food policy.

### ***Collaboration***

There was general consensus that collaborating across sectors would have many benefits. For example, consistency in communications with consumers would help to avoid confusion and assist them to make better decisions.

It was agreed that the group required a common purpose to provide a framework for future discussions and a tangible goal beyond just talking to work towards. It was proposed that advocacy in relation to the need for a national food policy may provide that common purpose.

***Summary***

1. A broad consensus exists on the need to continue the discussion.
2. The discussion should be broadened to embrace all aspects of food beyond just production and sustainability.
3. Contributing to an Australian Food Policy may provide an appropriate common purpose for the group.
4. The group should meet again, with a subgroup established to assist in developing an appropriate agenda.

## **Appendix: List of Participants**

### **Name Title Organisation**

**Susan Anderson** National Director Healthy Weight Heart Foundation Australia  
**Nick Costa** Professor of Sustainable agriculture Murdoch University  
**Lawrie Coutts** National Farm Manager – Supply Logistics (egg producer) Farm Pride Foods Limited  
**Steve Crimp** Climate Impacts Scientist CSIRO Sustainable Ecosystems  
**Angus Crossan** Program Manager – R&D Australian Egg Corporation Limited  
**Peter Darley** Apple Grower Chair Horticulture Committee, NSW Farmers Assoc  
**Veronique Droulez** Marketing Manager - Nutrition Meat and Livestock Australia  
**Sharon Friel**  
Fellow of National Centre for Epidemiology and Population Health at ANU & Director of Global Health Equity Group, International Institute for Society and Health, Uni College London  
Australian National University  
**Beverley Henry** Manager Environment, Sustainability & Climate Change Meat and Livestock Australia  
**Claire Hewat** Executive Director Dietitians Association Australia  
**Neil Inall** Workshop Chair  
**Ian Johnsson** General Manager, LPI Meat and Livestock Australia  
**James Kellaway** Managing Director Australian Egg Corporation Limited  
**Ruth Kharis** Accredited Practising Dietitian + environmental planning Representing herself  
**Yelli Kruger** Program Manager – Marketing Australian Egg Corporation Limited  
**Roger Landsberg** Beef Producer Meat and Livestock Australia  
**Mark Lawrence** Associate Professor Public Health Nutrition Deakin University  
**Amanda Lee** Manager, Nutrition and Physical Activity, Health Promotion Branch Queensland Health  
**Charles McElhone** Manager Economics and Trade National Farmers Federation  
**Michael Moore** Chief Executive Officer Public Health Association of Australia  
**Catherine Peachey** Acting Assistant Secretary, Healthy Living Branch, Population Health Division  
Department of Health and Ageing  
**Sarah Pennell** General Manager - Professional services Horticulture Australia Limited  
**Malcolm Riley** Regulatory and Policy Manager - Nutrition Dairy Australia  
**Chris Rowley** Health Co-ordinator Horticulture Australia Limited  
**Alison Turnbull** Environment representative Horticulture Australia Limited  
**Damon Whittock** Communications Manager Meat and Livestock Australia  
**Michael Williams** Workshop Facilitator  
**Peter Williams** Associate Professor Nutrition & Dietetics University of Wollongong  
**Tony Worsley** Professor of Public Health University of Wollongong