



## Red meat - healthy and sustainable?

### Background

An interest in linking the themes of 'sustainability', 'eating habits', 'nutrition', and 'food production' has emerged at national and international symposiums and in the literature. In particular, this is the evidence of the growing appreciation among Australian health professionals and agriculture professionals that sustainability is an essential issue when food production, food consumption and the environment are addressed with regard to the Australian Food and Nutrition System.

The impact of personal food choices on the long-term sustainability of the food and nutrition system has been discussed by various nutritionists and food-policy experts. However, the newly revised *Dietary Guidelines for Australians* has failed to integrate environmental concerns into its dietary recommendations. Nutritionists have always promoted good nutrition and healthy eating, but despite recent recognition that environmental issues are relevant to good health, appreciation of the concept "eating for sustainability" remains absent from the reasoning procedures of Australian human nutrition professionals, agriculture professionals and consumers.

### Eating for sustainability

"Eating for sustainability" was used in this study as the phrase to connect the themes 'eating habits', 'food production', 'nutrition' and 'sustainability'. In this study, it is defined as 'eating habits that support human health and the environment', of which the parallel is 'sustainable agriculture'. However, understanding of and attitudes towards the concept "eating for sustainability" are not well known among Australian health professionals, agriculture professionals, and consumers. The Australian Food and Nutrition System approach was used to explore their linkages in this study. Specifically, 'food production', 'food consumption', and 'nutrition' sub-systems were examined. Red meat, -beef - as a case-study facilitated observation of the linkages along the above spectrum by promoting an understanding of how a food production system impacts on both health and nutritional status and the environment, and *vice versa*. This type of investigation was essential if the scientific evidence base for the concept of "eating for sustainability" is to be accumulated to allow its incorporation into a future compilation of the *Australian Dietary Guidelines*.



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## Methodology

An electronic-questionnaire was designed to survey 696 Australian human nutrition professionals and agriculture professionals' understanding of the concept "eating for sustainability" in general, 'sustainability of the beef production system', and the relationship between 'sustainable agriculture' and the *Australian Dietary Guidelines* (65 valid returned surveys).

## Results

As expected, a majority of respondents (59%) were unaware or unsure of the concept of "eating for sustainability". Knowledge gaps and misconceptions were found in the understanding of 'sustainability of Australian beef-cattle production systems' and the *Australian Dietary Guidelines* in human nutrition and agriculture professionals, respectively.

Aware of the concept "eating for sustainability"			
		Human Nutrition Professionals	Agriculture Professionals
Not aware or unsure		51%	81%
Good understanding		49%	19%
Linkages between "sustainable agriculture" and Australian Dietary Guidelines			
		Human Nutrition Professionals	Agriculture Professionals
Current state	Unrelated	35%	50%
	Related	65%	50%
Future prospect	Unrelated	4%	33%
	Related	96%	67%

In particular, human nutrition professionals (84%) had a strong inclination that 'Western' eating habits were 'unsustainable'. The basis for this belief is that they perceived heavy meat-diets require substantial energy input for meat production. Some human nutrition professionals reflected on the high intake of overly processed/packaged foods transported over long distances and concluded that these factors make current 'Western' eating habits unsustainable. On the other hand, a majority of agriculture professionals (57%) considered current 'Western' eating habits to be 'mostly sustainable'. They justified this position with the argument that 'Western' food production has been on-going in Europe for centuries, and "most systems produce foods that can continue to be produced in the long term".

Human nutrition professionals considered beef in the diet to be compatible with the goals of "eating for sustainability", provided that the current rate of beef consumption is reduced or moderated. Those who considered beef in the diet to be incompatible argued that beef production demands high-energy input. Most human nutrition professionals (92%) believed that the existing beef-cattle production is not sustainable as they believed that majority of beef-cattle production was mainly feedlot-based. In contrast, agriculture professionals thought

that the sustainability of the beef-cattle production has been dealt with, and is therefore believed to be sustainable.

Moreover, the knowledge gap in prospects for certified environmental standards for improving the sustainability of Australian beef production exists between human nutrition professionals and agriculture professionals. 58% of human nutrition professionals showed limited awareness of the certified environmental standards for Australian beef production, whilst agriculture professionals commented that consumer demand for certified environmental standards, market demand, and attractive premiums are essential to promote those standards.

Similarly, 18 university students were recruited for the focus group interviews to explore Australian consumers' attitudes towards "eating for sustainability" and beef production. It was found that Australian consumers in this study strongly believed that Australian beef production was mainly feedlot-based, energy-inefficient and not environmental-friendly, indicating limited knowledge with respect to the Australian beef production system. They were strongly influenced by price, and therefore were unlikely to adopt the concept of "eating for sustainability" if there is an associated personal economic disadvantage.

## Conclusion and recommendations

Both Australian professionals and consumers have considered 'government enforced and subsidized Environmental Management Systems for food production' and 'labelling of food products produced through ecologically sustainable schemes' would encourage people to change to eating habits more consistent with the goals of "eating for sustainability". The communication channels between Australian health professionals and agriculture professionals will need to be bridged as the issue of "eating for sustainability" is emerging in both professions and for consumers. Such a partnership may lead to the effective integration of the concept of "eating for sustainability" to be incorporated into future agricultural environmental management systems, the *Australian Dietary Guidelines* and the national public health and nutrition strategy, *Eat Well Australia*.

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	Human Nutrition Professionals	Agriculture Professionals
Government enforced and subsidised environmental management systems for food production	26%	15%
Labelling of foods through ecologically sustainable schemes	27%	31%
A public education campaign	21%	38%
Australian Dietary Guidelines to incorporate "eating for sustainability"	14%	8%
A National Food and Nutrition Strategy to incorporate "eating for sustainability"	27%	8%