Concurrent Session 2: Nutrition Australia Symposium: Food Sustainability

On-farm carbon accounting of selected food and agricultural products

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Australia, as a signatory member of the Kyoto protocol, is required to report its emissions annually, and to meet the 108% of 1990 emissions target for the 2008-2012 commitment period. Australia's National Greenhouse Gas Accounts, including our National Greenhouse Gas Inventory, are based on well-developed and technically sound methodology. They are prepared according to the Kyoto Protocol's rules for greenhouse gas accounting and form the basis of Australia's annual emissions reports.

A life cycle assessment (LCA) study of greenhouse gases generated along the entire production chain of food products provides agricultural businesses with a profile of emission hot spots. Management decisions can then be made to target those key areas of high emissions that can reasonably be reduced, without impacting on the economic viability of the enterprise. A major difficulty in conducting LCA studies for the agriculture sector is the lack of emissions data for on-farm activities, especially those that reflect management practice change. The Australian governments National Carbon Accounting System (NCAS) provides the means for estimating carbon fluxes for the land sector and is being developed to include all greenhouse gases for all land uses, a truly comprehensive approach that is linked to spatially referenced data sets for national accounting purposes.

Several LCA studies on greenhouse gases for pre, post and on-farm production of agricultural products have been contracted with the Department of Climate Change in recent years. This presentation will discuss some of the findings of these studies and how agriculture is best placed to reduce its emissions footprint whilst maintaining productivity.