



3 FEATURE ARTICLE

Less meat means less heat – or does it?

It is highly questionable whether, in reality, 'less meat means less heat' – even if official greenhouse emission inventories might be positively changed if less cattle and sheep are produced.



The view that by reducing ruminant livestock production, global greenhouse gas emissions will be reduced, ignores the complexity of greenhouse emission accounting rules and the fact that what is counted as emissions may not necessarily reflect the realities of the carbon cycle.

Under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol to that Convention, there are a range of greenhouse accounting rules and guidelines that dictate what is and what is not counted. In combination, these rules mean that emissions from ruminant livestock appear to be quite prominent in the greenhouse inventories of nations such as Australia (11% of net national emissions), because most greenhouse gas removals from the atmosphere by agriculture are not counted.

Furthermore, whether less meat means less greenhouse emissions depends on what might happen if meat production is reduced. While measured greenhouse emissions arising from the cropping system might be less, it is unclear whether the actual net greenhouse emissions arising from the farm systems might be all that different in the longer term, especially if the switch to greater plant consumption by humans meant that the area of croplands had to expand.

2 INSTITUTE ACTIVITIES

A brief overview of the Institute's key activities from August to October.

6 FOLLOWING ON

A look at further developments on issues the Institute has researched. In this edition, a discussion of drought and the challenges it creates for the biofuels industry.

7 FARM POLICY PROGRESS

A review of farm policy developments within Australia and internationally. In this edition: Free trade with Chile threatens Australian horticulture; 'Carbon miles' reduce Australian bulk wine shipments; Incentive lifts EU farmers' interest in energy crops; ABARE assesses reforms of the EU's CAP; Farmers seek slice of set-aside action; US farm subsidy payments distributed to the dead; Further developments in US country-of-origin labelling laws; and more.

10 INSTITUTE RESEARCH AND EVENTS

A brief overview of the Institute's most recently completed Research Report – *Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers*.

11 FARM POLICY JOURNAL

In the November edition of the *Farm Policy Journal*, contributors discuss the development of the animal welfare movement and its interaction with Australian agriculture.





Australian
Farm Institute

INSTITUTE ACTIVITIES

Institute awarded federal funding for climate change research

The Australian Farm Institute has been awarded funding under the *National Agriculture and Climate Change Action Plan* (administered by the Australian Government Department of Agriculture, Fisheries & Forestry). The funding is for the Institute's proposed project on 'Responding to Climate Change: Technological solutions and commercial viabilities in Australian agriculture'. The project is due for completion mid-2008.

Research Report launch – Good Regulatory Practice

The Institute's latest Research Report, *Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers*, was launched at a seminar in Canberra on Wednesday, 26 September.

See the [Institute Research and Events](#) page of this newsletter to find out more.

Out and about

Over the last three months, the Institute's Executive Director, Mick Keogh, has spoken at a number of events, including:

- the Riverina Outlook Conference at Charles Sturt University and the Tasmanian Farmers and Graziers Association's GMO Farmers' Forum, about the long-term challenges facing Australian agriculture
- the July NSW Farm Writers' Association lunch, a Cotton Australia industry forum in Narrabri, the Western Catchment Landcare Forum in Cobar and the Dowerin GWN Machinery Field Days in Western Australia, on agriculture and emissions trading.

In the news

Drought and water policy have been key issues in the media over the last three months and Mick Keogh has participated in public debate, highlighting the environmental management skills of farmers and stressing the need for level-headed policy-making.

Among other contributions, Mick wrote an opinion piece for *The Australian* newspaper's water special (13 October) and appeared on ABC television's Difference of Opinion program when it considered: 'Is it really over for some of our food producers in the south?' (4 October).

Corporate support

The Institute welcomes Meat & Livestock Australia as its newest Corporate Member.

For more information on how you can support the Institute's work, contact the Institute on 02 9690 1388 or visit www.farminstitute.org.au

Call for papers

The February 2008 edition of the *Farm Policy Journal* focuses on biosecurity and quarantine. The deadline for papers is 17 December 2007.

If you are interested in submitting a paper, please contact Karen Romano on 02 9690 1388 or romanok@farminstitute.org.au

Australian Farm Institute

Suite 73, 61 Marlborough Street
SURRY HILLS NSW 2010

AUSTRALIA

T: 61 2 9690 1388

F: 61 2 9699 7270

E: info@farminstitute.org.au

W: www.farminstitute.org.au

Design and Production:
Australian Farm Institute

Printing:
J.A. Wales Printers, Alexandria

Images:
CSIRO, Living Country – UK Agriculture,
USDA ARS IPM Images

Less meat means less heat – or does it?

Mick Keogh, Executive Director, Australian Farm Institute

The ‘less meat means less heat’ catchcry has been gaining some prominence, but only because those espousing it obviously have little understanding of how greenhouse emissions are counted. Close analysis reveals that, in reality, less consumption of meat may not make much difference to atmospheric greenhouse gas levels.

In September 2007, the respected British Medical Journal *The Lancet* published an academic paper which proposed that a reduction in the consumption of meat would, among other things, result in a substantial reduction in global greenhouse gas emissions.¹ Similarly, a report commissioned by the environmental group, Greenpeace, proposed that to quickly reduce Australian greenhouse gas emissions, Australian consumers should reduce beef consumption by 20%, substituting kangaroo meat instead.² The ‘less meat means less heat’ catchcry has been quickly taken up by a number of environmental, climate change and animal welfare groups.

It is apparent that the proponents of this campaign have observed national and international greenhouse emission inventories that identify agriculture as the source of a large proportion of annual emissions – some 16% for Australia³ and 10–12% globally⁴. The largest proportion of these agricultural emissions is methane gas produced by ruminant livestock such as sheep and cattle. Not surprisingly, this leads to the conclusion that by reducing ruminant livestock production, global greenhouse gas levels will be reduced.

This conclusion, however, ignores the complexity of greenhouse emission accounting rules and the fact that what is counted as emissions may not necessarily reflect the realities of the carbon cycle. Also not considered is the fact that atmospheric methane emissions have actually stabilised since the 1990s.

Greenhouse accounting rules

A starting point in understanding why recorded emissions and actual emissions are different is the rules determining how national greenhouse inventories (which are the sum of both greenhouse emissions and removals from the atmosphere) are measured (or, more commonly, estimated). Greenhouse gas removals arise due to processes that remove greenhouse gases from the atmosphere and fix them in plant or other material.

... national greenhouse inventories theoretically refer only to net man-made greenhouse emissions, and do not include natural emissions or removals of greenhouse gases from the atmosphere.

The first point to be clear about is that quoted national greenhouse inventories theoretically refer only to net **man-made** greenhouse emissions, and do not include **natural** emissions or removals of greenhouse gases from the atmosphere. This makes sense, as the focus of international climate change policies is on reducing the additional greenhouse gas being added to the atmosphere as a result of human

activities. Not surprisingly, however, this creates some quite challenging definitional issues around what can and cannot be considered as natural emissions – especially for a sector such as agriculture.

For example, the greenhouse gases released into the atmosphere from a naturally occurring bushfire (started by lightning) technically do not need to be included in national greenhouse inventories, although this may not necessarily be the case if the bushfire involves the burning of a forest area that was established as a greenhouse offset. In the case where a bushfire is deliberately started on agricultural land – such as burning pasture areas in northern Australia or crop stubble – then the non-carbon dioxide emissions created (such as methane and nitrous oxide) are counted in the Australian emissions inventory, but not the carbon dioxide emitted. In the event that such a fire was started by natural causes, none of these emissions are counted. Deciding what is and what is not a ‘natural’ fire obviously becomes a critical issue.

Under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol to that Convention, there are a range of rules and guidelines that dictate how national greenhouse emissions inventories should be calculated. There are also some categories of greenhouse emissions and removals that nations were required to decide whether or not to include in their national

¹ McMichael, AJ, Powles, JW, Butler, CD, & Uauy R 2007, ‘Food, livestock production, energy, climate change, and health’, *The Lancet*, vol. 370, pp. 1253–63.

² Diesendorf, M 2007, *Paths to a Low-Carbon Future – Reducing Australia’s Greenhouse Gas Emissions by 30 per cent by 2020*, Greenpeace Australia.

³ Australian Greenhouse Office 2006, *National Greenhouse Gas Inventory 2005 – Accounting for the 108% Target*, Australian Greenhouse Office, Department of Environment and Water Resources, Canberra.

⁴ Forster, P et al. 2007, ‘Changes in Atmospheric Constituents and in Radiative Forcing’, in S Solomon et al. (eds), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press.

inventory. This applies, in particular, to agricultural emissions and removals under Article 3.4 of the Protocol, which deals with ‘additional human-induced activities related to changes in greenhouse gas emissions and removals in the agricultural soil and land use change and forestry categories’.

While inclusion of emissions and removals under this category would create the potential for the carbon dioxide and atmospheric nitrogen fixed in pastures and soil each year to be included as greenhouse gas removals in Australian agriculture’s greenhouse inventory, subsequent Protocol decisions about greenhouse accounting (the Marrakech Accords) meant that inclusion of emissions and removals under this category was more likely to increase Australia’s apparent national level of greenhouse emissions than decrease them⁵, and a decision was made not to include them in Australia’s national emission inventory.

Part of the reason is that the Marrakech Accords determined that a ‘net-net’ accounting rule should apply for emissions and removals counted under Article 3.4 of the Protocol. This means that what is counted is the difference between the net rate of emissions or removals that were occurring in 1990 and the net rate of emissions or removals occurring in the measurement year.

The implications arising from this is that as 1990 was a favourable season with a lot of pasture growth (and, therefore, a relatively high rate of carbon being removed from the atmosphere), any subsequent drier year would result in a big apparent increase being recorded in net greenhouse emissions from this source, because no distinction is made between natural (drought) and man-made (livestock grazing) emissions under Article 3.4 of the Protocol. However, the added complication arising from the Marrakech Accords is that it is a ‘one in, all in’ category, where net emissions arising from all national croplands and grazing lands would need

to be included in the national inventory, not just those arising from some farms, regions or commodity enterprises.

In combination, these rules for greenhouse accounting mean that emissions from ruminant livestock appear to be quite prominent in the greenhouse inventories of nations such as Australia (11% of net national emissions) and New Zealand (31% of net national emissions), because greenhouse accounting rules mean that most greenhouse gas removals from the atmosphere by agriculture are not counted. Looking in detail at the movement of carbon through livestock production systems provides further insights into this issue.

The carbon cycle in ruminants

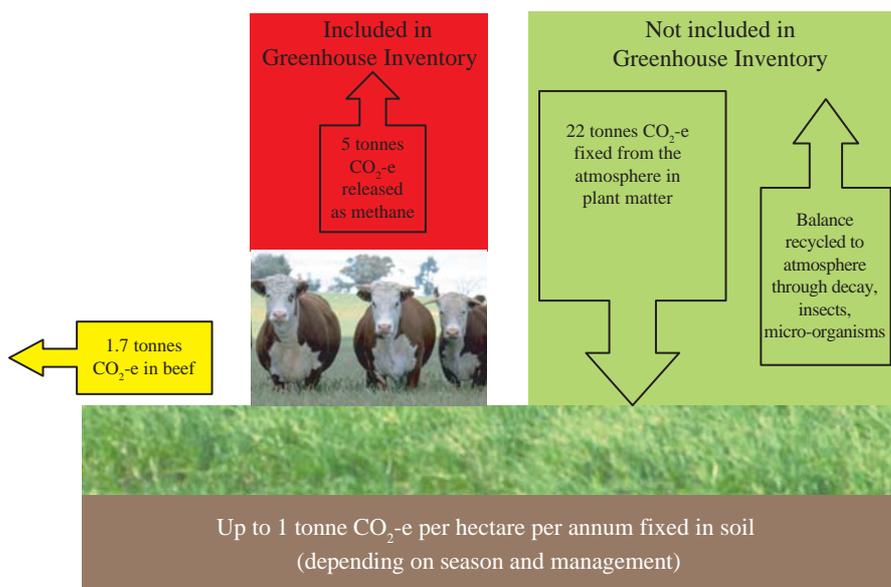
In ruminant animals, such as cattle and sheep, methane is released from the fore-stomach, via eructation, as a by-product of rumen fermentation by bacteria. The amount of methane produced per animal varies depending on the type and quality of feed consumed and other factors such as the size of the animal, breed etc.

Studies in the United States by Johnson and Johnson (1995)⁶ estimated typical annual methane production from cattle ranged from 60–71 kilograms (kg) for beef cattle and 109–126 kg for dairy cattle. More recent studies by Hegarty et al. (2007)⁷ suggest similar levels for grain-fed beef cattle in Australia.

Methane is a relatively potent greenhouse gas, which is regarded as having a ‘global warming potential’ of approximately 21. This means that over a 100-year period, one tonne of methane in the atmosphere will have the same warming effect as 21 tonnes of carbon dioxide. Using this to convert methane output into equivalent tonnes of carbon dioxide, the annual methane output from an average pasture-fed cow may be up to 2 tonnes of carbon dioxide equivalent (CO₂-e) per annum.

The greenhouse gas released into the atmosphere by ruminants such as cattle is, of course, produced as a result of the digestion of pasture, fodder or concentrates that are all produced by removing carbon dioxide from the atmosphere. The carbon cycle, as it relates to pasture-fed beef production, is shown in Box 1.

Box 1: The carbon cycle for one hectare of high rainfall pasture.

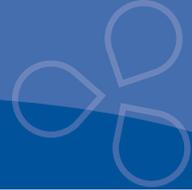


Annual yield of 10 tonnes of dry matter and 5 tonnes of roots per hectare, consisting of 40% elemental carbon. Stocked at 2.5 cows per hectare, with 70% pasture utilisation by cattle. Cattle weight gain of 1 kg per day, with beef estimated to contain 50% elemental carbon. Data is approximate.

⁵ Australian Government Department of the Environment and Heritage (DEH) 2006, *Kyoto Emissions Target, Accounting and Risk Issues for Australia, Elective Additional Land Use, Land Use Change and Forestry Activities (Article 3.4)*, DEH, Canberra.

⁶ Johnson, KA & Johnson, DE 2005, ‘Methane emissions from cattle’, *Journal of Animal Science*, vol. 73, no. 8, pp. 2483–492.

⁷ Hegarty, RS, Goopy, JP, Herd, RM & McCorkell, B 2007, ‘Cattle selected for lower residual feed intake have reduced daily methane production’, *Journal of Animal Science*, vol. 85, pp. 1479–486.



This is a highly simplified depiction of the carbon cycle and does not include all the greenhouse gas emissions or removals that arise in a beef production system. What the figure highlights, however, is that of all the various exchanges of greenhouse gases that are occurring, it is only the methane emissions from the cattle (and also the nitrous oxide emissions arising from the animal wastes) that are counted in national emission inventories. The complications associated with the rules surrounding greenhouse gas removals that could be counted under Article 3.4 of the Protocol mean that the positive side of the ledger (the carbon dioxide and nitrous oxide removed from the atmosphere by the growing pasture) is not counted.

Perhaps the simplest way of understanding the implications of these rules is to consider how a tonne of methane emitted into the atmosphere from three different sources is treated under greenhouse accounting rules. Three potential sources include: methane liberated from a coal seam; methane arising from cattle digesting pasture; and methane arising from termites digesting the same pasture.

A tonne of methane gas liberated from a coal seam (where it has been stored for millions of years) quite clearly results in a net increase in greenhouse gas in the atmosphere, and greenhouse accounts reflect this. A tonne of greenhouse gas emitted by a cow digesting pasture that has been produced as a result of the recent fixation of greenhouse gases from the atmosphere is also counted as a net addition of a tonne of methane into the atmosphere, even though a full accounting of the pasture-livestock system would mean the net emissions, if any, are considerably less than the carbon dioxide equivalence of the tonne of methane. Finally, a tonne of methane produced by termites (or any other native animal or insect) digesting the same pasture as the cattle would not be counted as part of a national emissions inventory.

Does less meat mean less heat?

Given the rules governing the manner in which national greenhouse gas inventories are calculated, it is easy to understand how the 'less meat means less heat' conclusion is reached. However, whether less meat means less greenhouse emissions depends on what might happen if meat production is reduced, assuming people will still require food.

In northern Australia, for example, most cattle are grazed on unimproved natural pastures and, in the absence of grazing, those pastures would either be burnt by periodical bushfires, consumed by native animals or insects such as termites, or subject to natural decay. In each of these cases, the normal cycling of greenhouse gases between soil, flora, fauna and the atmosphere would continue to occur, and it is questionable whether there would be any real long-term difference in actual greenhouse emissions (as distinct from recorded emissions) as a consequence of reduced beef production.

In higher rainfall areas where improved pasture species have been introduced, there has undoubtedly been a net increase in the stock of plant, soil and animal carbon present (and soil nitrogen where legumes are included in the pasture), compared with what would have been the case under natural conditions. This increase in the stock of soil and pasture carbon is greenhouse beneficial, as it has occurred as a result of the fixation of greenhouse gases from the atmosphere. If farmers in these areas stopped producing cattle and sheep, and instead produced crops, in most cases there would be a progressive loss of this stock of plant and soil carbon, and extra greenhouse emissions created if nitrogen fertiliser was applied, or fossil fuels were used to power tractors and harvesters.

While measured greenhouse emissions arising from the cropping system might be less, it is unclear whether the actual net greenhouse emissions arising from agriculture might be all that different in the longer term, especially if the switch to greater plant consumption by humans meant that the area of croplands had to expand.

It might be argued that a greenhouse emission positive alternative could be the production of meat from monogastric species such as pork and poultry, which have digestive systems that produce much less methane. However, the digestive systems of these animals' means they cannot be raised on a pasture diet, and this alternative would require that cropping areas would have to be expanded in order to supply the additional grain required for stockfeed. Again, it is questionable if the net result would be any actual change in greenhouse emissions over the longer term, even if published national greenhouse emission inventories might be positively changed as a result.

In conclusion, it is highly questionable whether in reality 'less meat means less heat' – even if official greenhouse emission inventories might be positively changed if less cattle and sheep are produced. That is not to suggest that livestock industries should abandon efforts to find ways to reduce ruminant methane emissions, as there are both production and short-term greenhouse emission benefits available if methane-reducing technologies are able to be developed. This conclusion also highlights the challenges that face the agriculture sector in attempting to ensure that greenhouse emission accounting and trading rules reflect reality, rather than the politics of domestic and international greenhouse negotiations. 

Will drought derail Australia's biofuel expansion?

The May edition of the *Farm Policy Journal* published by the Australian Farm Institute contained a series of papers analysing the approach that Australian agriculture should take to biofuels policy. The conclusion was that there is a need for caution, as policies supporting increased ethanol production from grain, for example, could create both positive and negative outcomes for farmers. This conclusion was subject to some criticism from proponents of renewable fuels, although events since that time have highlighted the issue's complexities.

Current seasonal conditions in Australia's grain belt have highlighted the challenges faced by inland grain-based ethanol refineries, given the variable nature of Australian grain production. Inland refineries are not easily able to import grain and, therefore, face significant challenges in securing grain supplies during poor seasons – a problem that is less critical for coastal-based refineries that do not face the same quarantine restrictions in securing imported grain. Oilseed production (a potential feedstock for biodiesel production) is even more variable than cereal production during drought years and presents greater challenges for those seeking to secure feedstocks.

The deferral of some plans to develop biofuel production facilities in Australia in recent months has highlighted the twin perils of changing government policy and feedstock supply, which are critical risks for investors in biofuels in Australia at present.

An issue of continuing debate in relation to biofuels has been the greenhouse emission benefits of biofuels in comparison with fossil fuels. A number of alternative analyses have been carried out which have reached different conclusions about the extent to which the production and use of biofuels results in a

net reduction in greenhouse gas emissions. The issue is confounded by varying definitions of the extent of the 'life cycle' of biofuel production and consumption systems, and the fact that ethanol has only 60–70% of the energy density of mineral petroleum.

The National Academy of Sciences of the United States of America commissioned a detailed review of the greenhouse emission benefits of biofuels versus fossil fuels by researchers at the University of Minnesota. The conclusion reached was that, relative to the fossil fuels they displace, greenhouse gas emissions are reduced by 12% by the production and combustion of corn-based ethanol, and by 41% by the production and combustion of soybean-based biodiesel. This analysis included:

- energy use associated with farm production systems for each of the relevant crops
- energy use associated with the conversion of the crops to biofuels
- energy yield available from the combustion of each of these fuels
- energy use associated with producing farm machinery and buildings
- energy use by farmers and their households
- energy associated with producing pesticides and fertilisers

- energy equivalent available from biofuel by-products such as dry distillers grain.

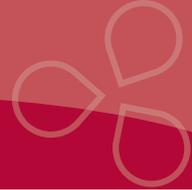
While not included in the analysis, the indications are that ethanol produced from sugarcane is more energy efficient and confers greater greenhouse emission advantages than grain ethanol.

There is no doubt this review by the National Academy of Sciences will not be the last word on the greenhouse emission implications of biofuels, but its independence lends it a degree of authority and clarifies some of the issues associated with this debate.

On the more general issue of the sustainability of crop-based biofuels as a future energy source, the review identified that even if the entire annual US corn and soybean crops were used for biofuel production, it would only meet 12% of current US petrol demand and 6% of US diesel demand.

A detailed review of many of the issues associated with biofuels from an Australian perspective has just been published by the Rural Industries Research and Development Corporation (RIRDC).

Copies are available from RIRDC's website, visit www.rirdc.gov.au 



A summary of some Australian and international farm policy developments

Free trade with Chile threatens Australian horticulture

On 18 July 2007, the Australian Government announced its decision to proceed with free trade agreement (FTA) negotiations with Chile. According to the Minister for Trade, Warren Truss, the negotiations aimed to increase Australia's energy, mining, dairy and other agricultural exports to Chile:

'These negotiations offer an excellent opportunity to develop a comprehensive and ambitious bilateral free trade agreement which would eliminate barriers to trade in goods, improve conditions for services exports and investment, and offer meaningful commercial opportunities for Australian exporters'.

However, this decision has raised concern amongst some Australian producers who fear a flood of cheap Chilean fruit imports as a result of the FTA. Summerfruit Australia Chairman Ian McAlister said:

'If an FTA goes ahead and Chile gains access to Australia supermarkets it will be an unmitigated disaster for thousands of Australians'.

Minister Truss said he was conscious of the sensitivities of the horticulture industries about an FTA with Chile. However, he pointed out that tariffs on these lines were already low – generally zero. He said:

'Australia will not be trading off our science-based quarantine system in either this or any other FTA'.

Chile is Australia's third largest trading partner in Latin America, with two-way trade in goods and services valued at A\$574 million in 2006.

'Carbon miles' reduce Australian bulk wine shipments

Grapegrowers & Vignerons, a monthly Rural Press publication, recently reported a decline in bulk wine shipments to most Australian export destinations due to consumer concerns over 'carbon miles'. According to the Australian Wine and Brandy Corporation (AWBC), the current top five destinations for Australian bulk wine accounted for about three-quarters of its shipments in the year ended August 2007. In the past six months, however, the AWBC reported a decline in bulk wine shipments to all of these markets, with the exception of the UK.

The AWBC reports that the increasing price consciousness of UK consumers and intense competition in the UK both provide incentives for shipping in bulk to achieve cost savings. Shipping in bulk also reduces the environmental impact of the transport mode, providing consumers with an interest in 'carbon miles' with further incentive to buy their wine in bulk.

Incentive lifts EU farmers' interest in energy crops

In 2003, the Common Agricultural Policy (CAP) of the European Union (EU) introduced aid to provide an incentive for farmers to increase the production of biofuels and electric and thermal energy produced by biomass.

Under this arrangement, farmers received €45 per hectare (ha) for growing crops destined for energy products, up to a maximum guaranteed total area of 2 million ha across Europe. If this area is exceeded, the area on which each farmer can claim aid is reduced by a coefficient to ensure that the aid budget is not overrun.

The European Commissioner for Agriculture and Rural Development, Mariann Fischer Boel, recently reported that the aid payment had been very useful in stimulating the European biofuels sector. In 2007, the energy crop area reached 2.84 million ha and so a reduction coefficient was introduced whereby eligible farmers receive €45 per ha for just over 70% of the land on which they claim aid.

The future of the biofuels aid system will be reviewed by EU officials during a 'health check' of the CAP reforms, due to take place in 2008.

ABARE assesses reforms of the EU's CAP

A recent report from the Australian Bureau of Agricultural and Resource Economics (ABARE), *The European Union's Common Agricultural Policy: A Stocktake of Reforms*, appraises the EU's efforts to reform trade distorting agricultural subsidies.

According to assessments contained in the report, ongoing changes in the EU's CAP have implications for Australian and international markets. ABARE Executive Director Phillip Glyde explained:

'The EU has a history of high agricultural support that depresses world prices and adversely affects Australian farmers. Recently, the EU has made positive changes in its agricultural support policies – moving away from the price support to less market distorting "decoupled" payments to farmers. However, many market distorting elements remain'.

EU officials claim that the single payments scheme payments are 'decoupled' from production and prices, and are minimally market distorting. The ABARE report,



however, points out that the large compensatory payments enable farmers to continue to produce with the aid of that support, with little incentive to change. The full report is available on the ABARE website: www.abareconomics.com

Farmers seek slice of set-aside action

The Weekly Times recently highlighted the absurdity of the European Farm Subsidy Program, publishing the contents of a letter sent to European farmocrats from someone seeking ‘a slice of the action’ of the Arable Area Payments Scheme (AAPS). The letter read:

‘My brother-in-law received a cheque for £3,000 for not rearing pigs. I now want to join the not-rearing-pigs business.

I would prefer not to rear bacon pigs, but if this is not the type you want not rearing, I will just as gladly not rear porkers.

I plan to operate on a small scale first – and will not rear 4,000 pigs, which will mean about £240,000 for the first year.’

The AAPS was introduced by the EU in 1993 as part of a program for tackling the overproduction of cereals. Effectively, this set-aside system curbs production by paying farmers not to produce.

Meanwhile, the European Commission (EC) proposed in September to drop, for a year, rules obliging grain farmers not to plant all of their land to help combat spiralling prices for cereals like wheat and a shortage of grain. EC farm spokesman Michael Mann announced:

‘The Commission has today cut the rate of compulsory set-aside to zero percent for grain planted either now, in the autumn or next spring, in other words for next year’s harvest’.

EU farm ministers are expected to endorse the decision.

And they say you can’t take it with you

Meanwhile, United States (US) farmers are also seeking ‘a slice of the subsidy action’ in a unique fashion, with a recent US Congressional investigation finding that farm payments were distributed to the dead.

The Government Accountability Office reported that the US Department of Agriculture (USDA) had distributed US\$1.1 billion in farm payments to more than 170,000 estates or companies of deceased farmers over a seven-year period.

In another embarrassing disclosure, the congressional investigators found that officials had approved payments without any review 40% of the time.

Further developments in US country-of-origin labelling laws

The July edition of the Australian Farm Institute’s *Farm Institute Insights* noted the contradictory nature of US country-of-origin labelling laws, whereby labels tell shoppers the origin of imported seafood, but not other products.

After years of debate, labels for a wider variety of foods – including beef, lamb, pork, perishable agriculture products and peanuts – may now become mandatory. US Senator Sherrod Brown was due to introduce legislation in October that would require country-of-origin labelling for processed foods. In addition, Brown has introduced the *Food and Product Responsibility Act of 2007*, which will safeguard US consumers against unsafe food and products and promote sound business practices among distributors of food and products.

US moves to block South American biodiesel

Confusion over where biodiesel legislation stands is causing uncertainty for biodiesel producers as they look to expand the industry in the US. The

US-based *Biodiesel Magazine* reports that existing US legislation allows importers of biodiesel from South American countries such as Argentina to capitalise on US renewable fuel subsidies. *Biodiesel Magazine* staff writer Nicholas Zeman explained:

‘Argentina biodiesel exports incur a 5% tax while exports of soybean oil incur a 24% tax. This 19% Differential Export Tax (DET) provides an incentive of 43 cents per gallon for Argentina’s soybean processors to convert soybean oil into biodiesel prior to export’.

US biodiesel producers have called for the introduction of an incentive to offset foreign subsidies in order to compete in the domestic market. As part of the review of the 2007 US Farm Bill, efforts are currently underway in the US to legislate in favour of domestically produced methyl esters in competition for federal funds and markets.

US flags easing of cattle import laws

The USDA has released details of a proposed rule on allowing cattle imports into the US from nations designated as being at a minimal risk of a bovine spongiform encephalopathy (BSE) outbreak.

The US National Cattlemen’s Beef Association (NCBA) supports the new rule and anticipates that it will not have a major impact on the US cattle market once it goes into effect. However, NCBA Economist Greg Doud warns that this decision may have an impact on the source of existing lean beef imports:

‘The primary result is expected to be additional imports into the US of Canadian non-fed beef. ... This will replace lean beef imports from ... New Zealand and Australia’.

R-CALF USA, a national cattle producer organisation, has registered opposition to the proposed rule and has voted to stop the USDA from allowing these higher risk, older Canadian cattle into the US.

Biofuel production threatens water supply

The ambitious plans of China and India to ramp up biofuel production will deplete their water reserves and seriously impact their ability to meet food demands, according to a new study conducted by the International Water Management Institute (IWMI).

IWMI scientist Charlotte de Fraiture said:

‘Crop production for biofuels in China and India would likely jeopardize sustainable water use and thus affect irrigated production of food crops, including cereals and vegetables, which would then need to be imported in larger quantities’.

The IWMI study reported that China aims to increase biofuels production fourfold to around 15 billion litres of ethanol – 9% of its projected gasoline demand – by 2020. India was found to be pursuing a similarly aggressive strategy. To meet their biofuel targets, China reportedly needs to produce 26% more maize and India 16% more sugarcane.

The IWMI study noted that the two Asian giants were already struggling to find enough water to grow the food they needed. Water scarcity has even prompted a response by the governments in both countries. India has a controversial multibillion-dollar plan to redistribute water within the country, while China is implementing a costly transfer project to bring water from the south to the north.

NZ Government announces scheme to tackle carbon emissions

The New Zealand (NZ) Government has announced that it will gradually introduce emissions trading from 2008 to address climate change, rather than its previously proposed carbon tax. The scheme will be the central platform for implementing NZ’s commitments under the Kyoto Protocol.

Under the proposed emissions trading scheme, major industries will be allocated a cap on emissions of greenhouse gases. Polluters who exceed the cap will be required to purchase credits from others who are below their limits or from those planting forests, which absorb carbon dioxide. The trading scheme will cover gases including carbon dioxide and methane.

The NZ Government has proposed a progressive introduction of industries under the scheme over a six-year period, with legislation to be introduced into Parliament before the end of 2007. Forestry owners will be able to get credits for planting from 2008, while liquid fossil fuels, mainly for transport, will come under the scheme from 2009. Coal, gas and geothermal energy used for electricity generation and other industries will be included in the scheme from 2010.

Agriculture, the single biggest source of NZ greenhouse gases, will be included in the emissions trading scheme from 2013. Nearly half of NZ’s total greenhouse emissions are produced by agriculture, predominantly methane from farm animals and nitrous oxide from soils and fertilisers.

Federated Farmers of New Zealand (FFNZ) has welcomed the government’s decision to delay dealing with greenhouse gas emissions from agriculture as it provides the sector extra time to find methods of reducing emissions. FFNZ President Charlie Pedersen said:

‘Waiting until 2013 will give researchers more time to extend their already ground-breaking work into new production systems, which will lower greenhouse gases without cutting NZ incomes’.

Canadian geese wreak havoc on NZ farms

Whilst many Australian farmers are struggling to feed their livestock due to prolonged drought, their NZ counterparts have to contend with uninvited dinner guests who impose similar devastating effects.

A surging geese population in the South Island has led to urgent calls for better management of goose numbers.

The NZ Minister of Conservation reports that the ‘grubby goose’ population is nearly double the optimal size. This finding is supported by the NZ farming community. FFNZ national board member Donald Aubrey said:

‘Farmers have long suspected the goose population to be out of control, but the latest trend count proves it. Canada goose numbers are at the highest level ever recorded. Action needs to be taken’.

Under the South Island Canada Goose Management Plan, numbers are capped at a population of 20,350. Mr Aubrey said the count this year was 36,597 and:

‘Geese lower agriculture production and add costs through the need for bird control as well as re-sowing of crops and pasture. Three adult Canada geese eat the equivalent grass that one sheep eats per day’.

The NZ Department of Conservation is currently reviewing the level of protections for some NZ wildlife, including the status of Canada goose.

Australia-Japan FTA negotiations show promise

The second negotiating round of the Australia-Japan FTA concluded in Tokyo in August with good progress made according to the Australian Minister for Trade, Warren Truss.

The Australian Chamber of Commerce and Industry (ACCI) welcomed the success of the second negotiating round. ACCI is a strong supporter of closer trade and economic relations with Japan. According to the ACCI, Japan is the world’s second largest economy and has been Australia’s largest trading partner for the past 40 years.

The ACCI reports that Australia exports over A\$34 billion worth of goods and services per year to Japan and estimates the Australia-Japan trade relationship to be worth A\$54 billion. 

Good Regulatory Practice Report Released

In September 2007, the Australian Farm Institute, in conjunction with Land & Water Australia, released a Research Report at a seminar in Canberra. The seminar addressed current regulatory red tape issues and involved a discussion of the farm sector's perspective on bureaucratic red tape and its cost to farm business, along with the presentation of the results of the Productivity Commission's recent review of the regulatory burdens borne by the primary sector.

The Institute-commissioned research, *Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers*, was conducted by the Australian Centre for Agriculture and Law at the University of New England, and reviewed how governments around the world develop new environmental laws. The research team, led by Professor Paul Martin, used that information to evaluate recent laws addressing environmental issues on farms and to identify ways to improve the processes used to develop those laws and regulation.

The research highlights many shortcomings in current processes, but notes that there is no such thing as a perfect regulatory structure. It suggests that Australia is making fundamental mistakes in its approach to environmental laws, with the costs of either the constraint or the failures of the law often falling on a small number of people – usually farmers – some of whom are innocent of causing the harm being addressed.

The results of these mistakes are: insufficient protection of environmental values; a waste of public resources; and unfair burdens being placed on many farmers. The report cautions that unless these mistakes are corrected, outcomes from environmental laws are likely to be less effective and fair – particularly given the likely future pressures on government budgets, farming and the environment.

The research highlights the need for regulators to do their homework in order to design laws that prevent harm to the environment and, at the same time, minimise the impact on those trying to do the right thing.

Whilst the report recognised that improved regulatory practices were vitally important, it warned that promised benefits would only be delivered if they sit within an institutional architecture that is efficient and appropriately resourced. These conditions do not currently exist – Australia's national regulatory architecture is both cumbersome and confused, and insufficiently resourced to be fully effective.

The research highlights the need for a more streamlined national regulatory architecture and for the design of systems to reduce transaction costs and red tape. It recommends that governments make greater use of legislative impact statements that: are transparent about costs and benefits; identify potential unfairness; and clarify the resources required to administer the new arrangements.

The report recommends four reforms of Australia's existing national regulatory architecture to improve natural resource regulation.

1. Reduce the number of natural resource laws.
2. Use systems-focused multi-instrument strategies to create 'smart' regulation.

3. Design strategies that are feasible given available government resources and human resources and capacity of those being regulated.
4. Implement a principled approach to fair allocation of conservation costs and benefits.

These four reform proposals address the substance of natural resource regulation. The researchers proposed a fifth reform goal about regulatory process that is synergistic with those outlined – making their achievement more likely.

5. A regulatory process that puts pressure on regulators and parliaments to create laws that achieve the efficiency goals of systematic behaviour change, minimum transaction costs, minimum cost to government and fairness.

The research recognised that these reforms will be costly to implement and will add complexity to the process of creating a new law. However, it cautioned against using these concerns as a justification for inaction as the resultant economic costs, personnel pressures and environmental costs of having suboptimal environmental regulation impacting on farmers is far greater than any additional difficulties in the creation of new law.

The report can be viewed by members or purchased by non-members at www.farminstitute.org.au/publications/project_reports 



Animal welfare – consumer passion or consumer fashion?

Recent years have witnessed an increased level of activism by groups critical of farm animal welfare standards. The criticisms have targeted intensive livestock production systems such as pork and poultry, but have also extended to extensive livestock sectors such as the sheep and cattle industries.

While activists' criticisms of farm animal welfare standards are nothing new, what is new is the engagement of consumers in the issue and the development of the Australian Animal Welfare Strategy (AAWS) by the Australian Government, as a mechanism to engage all key stakeholders throughout Australia.

Papers in the November 2007 edition of the *Farm Policy Journal* cover a range of perspectives on farm animal welfare, including those of the Australian Government, the European Union (EU), the Animal Welfare Science Centre, the Royal Society for the Prevention of Cruelty to Animals (RSPCA) and Animals Australia.

Dr Hugh Wirth AM is the President of RSPCA Victoria and was previously the President of RSPCA Australia and of the World Society for the Protection of Animals. His paper provides a short history of the modern animal welfare movement, including the two major philosophies of animal welfare and animal rights, and the development of humane law. It goes on to discuss consumer-driven change to animal production standards in Australia and overseas, and concludes with some comments on the future of animal welfare in Australia.

Dr Peter Thornber is Acting Deputy Chief Veterinary Officer with the Australian Government Department of Agriculture, Fisheries and Forestry. His paper considers Australian policy

on animal welfare, as embodied in the AAWS. The paper outlines AAWS achievements thus far, as well as the next steps in the implementation process. It comments on the 'real or perceived conflict between farmers and the animal welfare movement', as well as the roles of on-farm quality assurance and education and training.

Professor Paul Hemsworth is Director of the Animal Welfare Science Centre – a venture partnered by the University of Melbourne, Monash University and the Victorian Department of Primary Industries. Together with his colleagues, Dr John Barnett, Professor Mike Rickard and Professor Grahame Coleman, Professor Hemsworth examines four key areas of activity necessary to rationally address genuine animal welfare risks, namely: undertaking animal welfare science; understanding public and consumers attitudes to animal welfare; providing public and industry education; and setting animal welfare standards through broad stakeholder consultation.

Dr Andrea Gavinelli is Deputy Head of the Animal Welfare and Feed Unit within the European Commission's Health and Consumer Protection Directorate General. Together with his colleagues, Dr Cornelius Rhein and Dr Maria Ferrara, Dr Gavinelli highlights that today the farming of animals is no longer viewed by European consumers simply as a means of food production

– instead, it is seen as fundamental to other key social goals such as food safety and quality, sustainability and enhancing the quality of life in rural areas. The paper discusses the first *Community Action Plan on the Protection and Welfare of Animals 2006–10*, through which the European Commission aims to initiate a broad public debate on animal welfare that will allow the shaping of a coherent and widely accepted policy, both in the EU and with major trading partners.

Glenys Oogjes has been the Executive Director at Animals Australia for the past 24 years, as well as serving on the RSPCA Victoria Council for 10 years. Together with her colleague, Malcolm Caulfield, she discusses government and industry responses to growing community concern regarding animal welfare in farming. The paper suggests that '[w]hilst there has been increasing concern in Australia about farm animal welfare in recent years, the most extensive and striking examples of changes resulting in welfare improvements have taken place overseas'. It concludes that animal industry leaders and companies could seek to exploit the opportunity offered by the shift in consumer attitudes.

The November edition of the *Farm Policy Journal* will be released on 3 December. It can be viewed by members and subscribers, or purchased by non-members, at www.farminstitute.org.au/publications/journal2 

OECD Farm Subsidy Report Card Released

The Organisation for Economic Co-operation and Development (OECD) has released its 2007 report card on government farm subsidy levels in developed nations. Once again in 2006 – despite significant drought payments – Australian farmers ranked at the bottom of the table in terms of government support levels, and along with New Zealand is the only nation with farm support levels at less than 10% of farm income (Figure 1). This OECD subsidy figure accounts only for direct farm support, not environmental payments. If these were included, international farm support levels for most other nations would be much greater.

The Australian farm ‘producer support estimate’ (PSE) for 2006 is 6% – inflated somewhat by increased drought support payments – but also by the fact that farm incomes were substantially reduced during 2006 (Table 1). One third of Australian farm ‘subsidies’ arise from the diesel fuel rebate (arguably not a subsidy) and another third arises from government support for agricultural research and development.

Interestingly, the OECD report noted that, unlike most OECD nations, the Australian Government pays virtually no money to Australian farmers for environmental activities. In noting the lack of support for environmental activities, the OECD concluded that:

‘to ensure the continued growth in agricultural production and exports, a key challenge will be to reinforce the economic viability of farming while also providing for the conservation of natural resources and addressing environmental concerns related to farming activities.’

This is OECD-speak that perhaps means: ‘It’s about time Australian governments paid farmers for the environmental services they provide’!

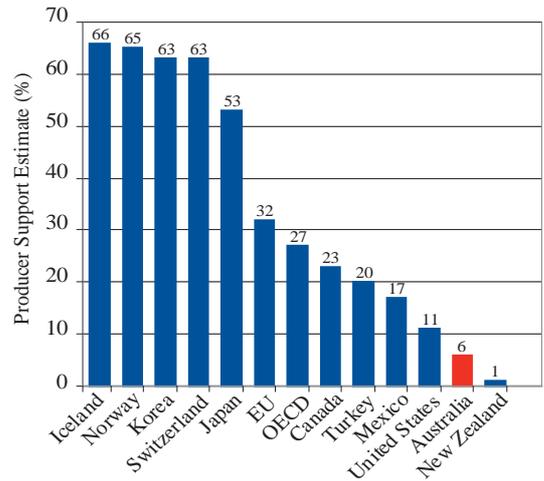


Figure 1: Summary of producer support estimates.

Australian Farm Institute Publications List

Discussion Paper

Members A\$33 (Incl. GST) & Non-members A\$55 (Incl. GST)

The New Challenge for Australian Agriculture: *How do you muster a paddock of carbon?* (on greenhouse policy and emissions trading)

Research Reports

Members A\$44 (Incl. GST) & Non-members A\$66 (Incl. GST)

Developing a Good Regulatory Practice Model for Environmental Regulations Impacting on Farmers

Productivity Growth in Australian Agriculture: *Trends, Sources, Performance*

Enhancing the Customer Focus of Australian Agriculture

Vertical Contracting and Australian Agriculture: *Implications for farmers and policy-makers*

Agricultural Development in Argentina and Brazil: *Emerging trends and implications for Australian agriculture*

Australian Farm Sector Demography: *Analysis of current trends and future farm policy implications*

Australia’s Farm-Dependent Economy: *Analysis of the role of agriculture in the Australian economy*

Farm Policy Journal

Members A\$27.50 (Incl. GST) & Non-members A\$44 (Incl. GST)

water policy reform – will it perform?

Vol. 4 | No. 3 | August Quarter 2007

biofuels – can agriculture feed and fuel the world?

Vol. 4 | No. 2 | May Quarter 2007

China – emerging opportunity or emerging threat?

Vol. 4 | No. 1 | February Quarter 2007

environmental management systems – is there value in the cost?

Vol. 3 | No. 4 | November Quarter 2006

regional development policy – can it work?

Vol. 3 | No. 3 | August Quarter 2006

drought – developing policy before the inevitable dry

Vol. 3 | No. 2 | May Quarter 2006

agricultural research & development – a private future?

Vol. 3 | No. 1 | February Quarter 2006

salinity and native vegetation – policy solutions required!

Vol. 2 | No. 4 | November Quarter 2005

marketing on-farm environmental services – any buyers?

Vol. 2 | No. 3 | August Quarter 2005

EU agricultural policy – reforming or rebranding?

Vol. 2 | No. 2 | May Quarter 2005

industrial agriculture – farming the food chain

Vol. 2 | No. 1 | February Quarter 2005

climate change – can agriculture take the heat?

Vol. 1 | No. 3 | November Quarter 2004

biotechnology – agriculture’s gene revolution

Vol. 1 | No. 2 | August Quarter 2004

the future of farmers and farming

Vol. 1 | No. 1 | May Quarter 2004



Platinum & Gold Corporate Partners:



Australian Farm Institute

Corporate Partners:



Suite 73, 61 Marlborough Street
 Surry Hills NSW 2010 Australia
 T 61 2 9690 1388 F 61 2 9699 7270
 E info@farminstitute.org.au
 W www.farminstitute.org.au