

Meat is Costing the Earth

“There is no doubt that reducing consumption of meat, especially red meat, is one of the most effective things the individual can do to reduce their greenhouse gas pollution. Producing meat turns vegetable protein very inefficiently into animal protein, using large amounts of energy and water in the process. Secondly, meat production takes place a long way from the main population centres, so large amounts of fuel energy are needed to transport meat to urban consumers. Thirdly, meat products need to be cooked to be safe to eat, generating more greenhouse gas pollution. Ruminant animals also produce large amounts of methane, a much more potent greenhouse gas than carbon dioxide, in the process of digesting grass. So overall, meat production in general and beef production in particular is a serious contribution to greenhouse gas pollution and hence global warming.”

Professor Ian Lowe, 2005.

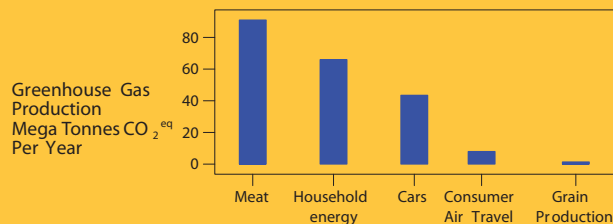
President, Australian Conservation Foundation

Author, *Living in the Hothouse*, Scribe Publications 2005

Meat and the Greenhouse Effect

The methane from 28 million cattle is 21 times more potent as a greenhouse gas than carbon dioxide.

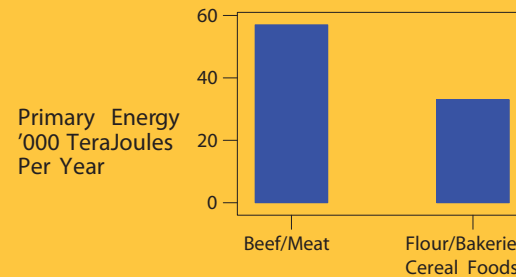
The following graph shows the production of greenhouse gases from meat products compared with grain production, household energy, car use and air travel in Australia.



A Sydney University study calculated that reducing your meat intake from the Australian average of 300gms per day to 150gms saves 1.4 tonnes of greenhouse emissions every year — about the same as reducing your annual car travel by 4,700 kms in a family automobile. The energy savings each year would power the average household for nearly a month.

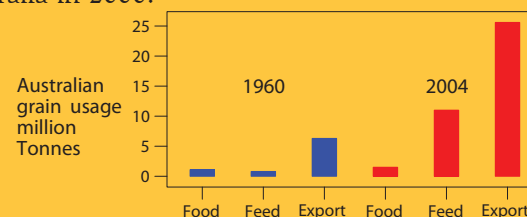
Energy Usage

It's not just methane that makes meat a heavy greenhouse emitter. There are also large amounts of fuel and electricity used in the production and distribution of meat before it is cooked. Cattle trucks use energy, slaughterhouses use energy, refrigeration uses energy. To get a realistic comparison we used figures from the CSIRO/Sydney University Balancing Act report to compare Australian production of beef cattle and meat products against wheat, flour and bakery products in the graph below.



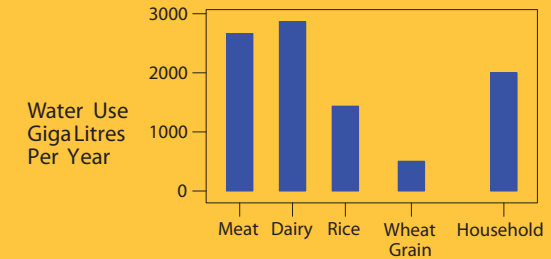
The energy used for meat is even higher if you consider that most bakery products do not need further cooking, but most meat products do. We produce and export about 10 times more wheat than meat, nevertheless meat production is a much larger user of energy — and you still have the cooking and refrigeration to add in.

As feedlotting of beef cattle increases and the grain fed chicken and pig industries expand, the energy used in meat production increases. Most of Australia's cattle today end their lives eating grain in feedlots, 75 days for the domestic market, and 145 days for the export market. Shipping grain around the country and refrigerated meat around the globe uses far more energy and generates more greenhouse emissions than shipping grain directly for human consumption. 8,000 square kms of land was used to grow livestock feed in Australia in 2000.



Water Usage

Meat production and dairy farming are not only major sources of greenhouse gas emissions, they are also massive users and polluters of water.



Many people are surprised at the above graph which shows that meat uses twice as much water as rice in Australia, they are even more surprised when they realise that the rice we grow and export provides more calories than the two million tonnes of beef produced annually.

Much of the water involved in the meat industry ends up seriously polluted and needs treatment. Abattoir waste water and piggery effluent is some of the most highly polluted water in the world, requiring extensive treatment before release or reuse.



The usual measure of the quality of water is the BOD (Biochemical Oxygen Demand — the amount of oxygen required by bacteria for the decomposition of organic matter in 5 days at a standard temperature). The BOD of human sewage is 300 to 500 mg per litre, piggery effluent has a BOD of more than 5,000 mg per litre.