

Episode 4
22 April 2008

Reducing Your Food Emissions



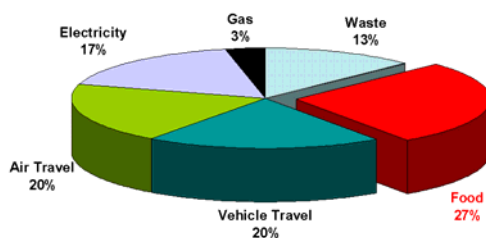
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Food is your biggest source of emissions

Many people are surprised when they find out about where most of their greenhouse emissions come from.

If you asked most people what their biggest single source of emissions was, most would say their car, electricity or their hot water system.

However, the biggest source of greenhouse gas emissions for the typical Australian household is food.

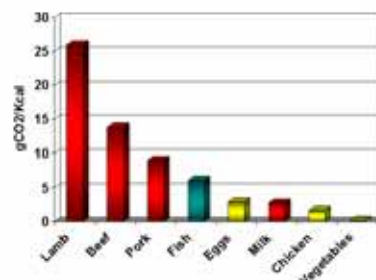


Sources of GHG emissions for a typical Australian household

Yes, what you put in your mouth produces more greenhouse gases than anything else you do.

The problem is mainly to do with our diet. Most people in Australia live on a diet that is relatively high in red meats—beef, lamb and pork.

Unfortunately there are huge amounts of emis-



CO₂ emissions from major types of food

sions associated with getting that lamb chop onto your dinner table.

For example, aside from the methane emissions from the animals themselves, there are significant emissions associated with fertilizers used for pasture and grains on which livestock feed and with the processing, transportation and packaging of the meat.

So for red meat lovers, the sad fact is that the biggest thing you can do to reduce your emissions is to reduce your servings of red meat—even if it is only by one serving a week.

The good news is that Chicken is relatively low in emissions.

Mealopedia - Making Menu Planning Easy

An Australian Company is offering a free on-line menu planning service that takes the hassle out of deciding what to eat and avoids having you run out of that essential ingredient.

Mealopedia allows you to select your diet from a large range of options including vegetarian, low carb and vegan and will then generate a weekly

dinner menu automatically. It will even generate a grocery list for you and will tell you where you can go to buy the groceries.

Mealopedia are also working on a "Low Carbon" diet (see our main story above).

www.mealopedia.com

mealopedia
making menu planning easy



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Watch Eco-Change on WakeUp WA

- Watch on Channel 31 Tuesdays between 7:15am and 7:45am
- Watch on-line at <http://www.iinet.net.au/my/media/>



Experience City Farm Perth

It might just be Perth's best kept secret.

In East Perth between the hard lines of the TAFE and the railway line lies the green oasis that is City Farm Perth.



City Farm is an organic community garden, education and network centre that operates on permaculture principles.

City Farm promotes environmental

awareness and responsible practices by providing information, training and hosting community-based projects.

City Farm also supports the local music and art community through regular con-

certs, festivals and exhibitions.

City Farm facilitates government employment and service programs, permaculture tours and workshops for Primary and high school students.

Every Saturday morning, organic producers from as far a-field as Nannup and Manjimup bring their produce along to



Food lovers from all over Perth flock to the Organic Growers Market on Saturday

City Farm for the weekly Organic Growers Market.

Savvy shoppers stock up on organic fresh produce such as fruit, vegetables, meats and dairy products.

www.cityfarmperth.org.au



City Farm Perth is located at 1 City Farm Place East Perth, just off the Graham Farmer Freeway and close the Claisebrook Station

Beer Production Threatened by Climate Change

Those of you who enjoy the occasional drink of the amber ale may be depressed by news that beer production may be impacted by Climate Change.

Drought conditions in parts of Australia where malting barley was grown was likely to get worse, according to Jim Salinger of New Zealand's National Institute of Water and Atmospheric Research.

Malting barley production in Australia was likely to be hit hard in parts of Western Australia, South Australia, Victoria and NSW.

The dry areas of Australia would become drier and water shortages would get worse.

"It will provide a lot of challenges for the brewing industry," Dr Salinger said.

"It will mean either there will be pubs without beer or the cost of beer will go up"

Red Meat Lover? Switch to Kangaroo

Australia's livestock herds discharge more than three million tons of methane a year, accounting for 14 per cent of Australia's output of greenhouse gases.

Kangaroos on the other hand produce no methane. Without going into the details of how we know about this startling fact, this does provide a good option for red meat lovers who are struggling to beat their addiction.

Kangaroo meat has the added advantage that Kangaroos graze on native bushland. They aren't raised on farms, so there are no emissions associated with the use of fertilizers on pasture and livestock feed.

Kangaroo is now freely available in most supermarkets, so there are no longer any



Reduce your emissions by eating Kangaroo in place of beef, lamb or pork

excuses for not giving it a go. We've even included a recipe on the facing page if you are looking for some inspiration.

Low Carbon Recipe - Kangaroo Fillet with Honey Beetroot

Ingredients

2 Medium Beetroot
50g Butter or Ghee
2 Tsp Red Wine Vinegar
2 Tbsp Water
1 Tbsp Honey
1 Tbsp Olive Oil
4 Kangaroo Fillets
1 Tbsp Green Peppercorns
1/2 Cup Port
1/2 Cup Beef Stock

Method

For the Honey Beetroot:

Trim the ends from the beetroot and the peel and coarsely grate.

Place the beetroot in a small saucepan with the butter, vinegar and water.

Place over a medium heat and bring to a boil. Once boiling, reduce the heat to low and simmer covered for 10 minutes, stirring occasionally.

Add the honey and season to taste with freshly ground pepper and salt.

For the Kangaroo:

Heat the olive oil over high heat in a medium frying pan.

Season the kangaroo with freshly ground salt and pepper and cook for 3 minutes each side or until cooked to your liking.

Remove and set aside.

Add port, stock and peppercorns to the pan and simmer until the sauce is reduced by half.

You can make the sauce extra rich by adding a knob of butter at the last minute.

Serves 4



Food Mile Facts

Food Miles is a measure of how far food travels - from paddock to plate - and is an indication of how environmentally-friendly it is. Food freight - especially by air and road - consumes fuel and energy, and releases greenhouse pollution, affecting the global climate.

Generally speaking, the lower the food miles the better choice the product is for the environment.

Overseas studies reveal some sobering facts about the hidden environmental costs of imported food:

- The energy consumed in food freight often outweighs the nutritional energy in the food itself. For instance, it takes around 1,000 kilojoules of energy to ship 170kJ worth of strawberries from Chile to the United States.
- A recent German study found that a 240ml cup of yoghurt in a supermarket shelf in Berlin entails over 9,000km of transportation. (Germans eat 3 billion cups a year.)
- In the United States, the food for a typical meal has travelled nearly

2,100km, but if that meal contains off-season fruits or vegetables the total distance is many times higher.

- Even imported organic food can have a tremendous impact. A single Briton's shopping basket of 26 imported organic products could have travelled 241,000km and released as much CO₂ into the atmosphere as an average four bedroom household does through cooking meals over eight months.

However Food Miles are only one factor that consumers should take into consideration when deciding what to buy.

In some cases transport is only 20% of the total energy budget of a food's production.

Products that are produced in an energy efficient way and are then shipped in bulk halfway around the world can have a lower carbon footprint than the same goods produced locally.

For example, a life cycle analysis of kiwi

"While Food Miles is a useful first indicator of how eco-friendly an item is, it is not the only factor that should be considered."

fruit production shows it is less energy demanding to ship New Zealand fruit to the UK than it is to truck fruit from Italy

We have to move from food miles to carbon foot-

printing that measures the embodied CO₂ created in the whole life cycle of that product.

While Food Miles is a useful first indicator of how eco-friendly an item is, it is not the only factor that should be considered.

Of course, the best option is to grow the produce yourself using organic and permaculture principles.

Courtesy of ACF

References

Clay, J. 2004. World Agriculture and the Environment, Island Press, Washington DC.

Jones, A. 2001. Eating Oil: Food Supply in a Changing Climate. A Sustain/Elm Farm Research Centre Report, United Kingdom.



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It's Easy Being Green

We're on the web:

www.ecochange.org.au

EcoChange is about guiding people in how to make eco-friendly changes to their lifestyles.

We provide advice via our weekly television segment on Wake Up WA and support this with resources on our website.

Wake Up WA airs from 7:00am to 8:00am from Monday to Friday on Channel 31 in Perth and throughout Western Australia.

You can view the show online by visiting the following website: <http://www.iinet.net.au/my/media/>

The segment will initially take on a variety of formats including on-location and in-studio interviews, tips and advice as well as links to eco-change resources.

EcoChange aims to:

- guide regular Wake Up WA viewers in making eco-changes to their own lifestyles;
- highlight the positive eco-changes that have been taken by local individuals, organisations and groups;
- answer common questions by people who are keen to reduce their carbon footprint but are unsure of where to start.

Cheeseburgers Produce More Emissions than SUVs

If you needed any more reasons to reduce your intake of fast food, and hamburgers in particular, then here is another one.

Some estimates have Americans eating as many as three cheeseburgers per week - on average!!

In the USA, regulations require that cows be at least 21 months old before they are slaughtered.

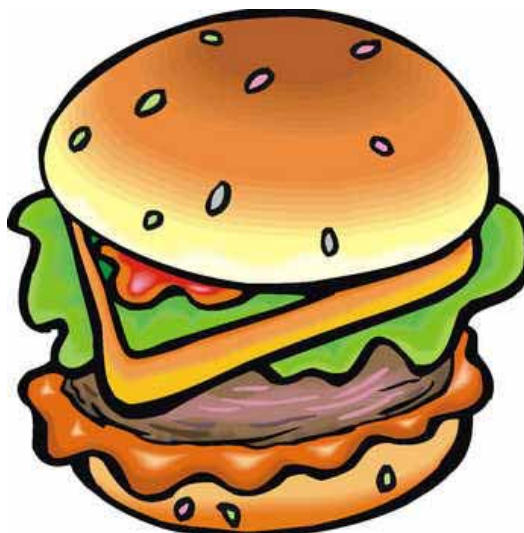
An average cow produces 110kg of methane per year from its manure and the processes that are going on in its gut.

So, by the time it is slaughtered, the cow has produced 220kg of methane.

It gets worse, because methane is a much more potent greenhouse gas than carbon dioxide, so this is equivalent to 5000 kg of carbon dioxide!!

A single cow can produce about 2000 hamburger patties, so that works out at about 2.5kg of CO₂e per hamburger.

Then you have the emissions associated with fertilizers used for growing feed for the cattle, processing, transportation,



Help save the planet - eat less cheeseburgers

packaging and building and running the restaurant. This is conservatively estimated at 2Kg CO₂e per hamburger.

So in total we have 4.5Kg CO₂e per hamburger.

At 3 hamburgers per week this equates to just over 210 million tonnes of CO₂e every year for the entire USA!

Now many people when they think of the USA think about freeways jammed with SUVs (Sports Utility Vehicles). There are a lot of SUVs on the roads over there - 16 million at last count.

All of the SUVs are calculated to generate emissions totalling 160 million tonnes CO₂e.

That's 20% less than from the cheeseburgers!