

Ethanol is inevitable

The Queensland Government has said it wants 5% of petrol to contain ethanol by 2010. Other groups, like the RACQ, say that there are no environmental or economic grounds for a mandate, and that food and fuel prices will rise.

Let's look at the environmental side first. Climate change is now recognised as a major environmental issue. The two main outputs of greenhouse gases are electricity generation and motor vehicles. There is a lot of talk about clean coal, but reducing outputs from motor vehicles is currently sitting in the too hard basket.

More fuel efficient vehicles will help, but so will renewable fuels. Ethanol is still the most efficient way we have been able to convert sunlight into portable energy. A recent study by the University of California examined fuels with low greenhouse gas output. Their review of the whole energy lifecycle of ethanol showed that, compared with petrol, there is a 60% reduction in greenhouse gas emissions from ethanol, when it is blended with petrol at 10%.

Ethanol helps petrol to burn more completely and air pollution is reduced. Benzene is the most toxic component of petrol engine exhaust gases and a 10 percent ethanol blend can reduce benzene emissions by 25 percent. Ethanol boosts octane and is a lot more environmentally friendly than most of the aromatic compounds used to enhance the octane level of premium fuels. Brisbane has a worsening smog problem, which is largely caused by motor vehicles and ethanol fuel blends can help.

To say there is no economic argument for ethanol is to miss the whole point of Australia's trade balance, which runs at a negative billion dollars or so each month. Producing renewable fuel in Australia will reduce the burgeoning import bill for petrol, with a positive effect on our trade balance of around twice the value of the grain used for ethanol, which otherwise might be exported.

The price of food will rise due to ethanol, but this is a response to higher oil prices. Grain has been too cheap relative to petrol and it is inevitable that fuel will be produced from grain while it is cheaper than refining oil.

Grain prices have already risen due to the huge ethanol industry in the USA. According to the Renewable Fuels Association, there are currently 121 grain ethanol biorefineries in the USA, with the capacity to produce 24 billion litres of ethanol annually. An additional 82 construction projects are underway that will add another 23 billion litres of new ethanol production capacity over the next 18 months.

The huge demand for corn in the USA has pushed grain prices up close to 'petrol parity' and whatever we do with ethanol in Australia will be puny by comparison.

What about the US government subsidies? Are they pushing up the price of food? At present the income tax credits for ethanol in the US are small - equivalent to \$US0.135 per litre, which is less than the final discount on excise, of 26 cents per litre, which will be applied to ethanol in Australia in 2015.

The cost of the ethanol tax break to the US government is an interesting tradeoff. Last year the cost of tax credits on ethanol was \$6 billion, but the US government saved \$7.5 billion on payments to corn growers because of the rise in corn prices and less price support being needed.

Livestock producers have been impacted by higher grain prices. But beef prices will soon rise to reach a new equilibrium with grain prices. This is because a large amount of beef is produced from grain, and if supply goes down, the price goes up.

The impact on food prices should only be small. If we examine what drives supermarket prices of up to \$20 per kilo for beef, when the farmer receives \$2 per kilo, it can be seen that the price of the primary product is only a small part of the cost of food.

Farmers have been too successful, keeping production ahead of consumption. This has kept prices low and has resulted in many countries subsidising farm production to keep farmers in business. Grain will be converted into ethanol while it can be made at less cost than fuel. The price of grain has already risen to the point where it is marginal for ethanol and biodiesel production, but it needed to rise to such a level for farmers to make a reasonable living.

The debate over food being used for fuel has only just started. We will always be able to pay more for food than for fuel. However, some of the subsidies that were supporting farmers in developed countries may be needed to help poor countries buy food.

Do we need a mandate for ethanol in fuel then? If it is profitable, then why not just let it happen?

Ethanol production would develop in Australia if the proposed ethanol plants could get a fair price for ethanol. The feedback I receive is that the fuel companies are not willing to pay full value for ethanol or to commit to buy enough ethanol to get an industry off the ground. A mandate may overcome this, but there may be better ways than a mandate to encourage payment of a reasonable price for ethanol.