Agricultural Innovation Submission 6

I wish to make a Submission to the Inquiry into Agricultural Innovation.

My Submission is regarding a "GMO" bacteria which is capable of preventing the deaths of thousands of cattle every year.

This Bacteria came about through a team of Scientists at the University of New England under Dr Keith Gregg who took a natural occurring soil borne bacteria, which reduces the toxicity of the Fluoroacetate poison, and successfully inserted a natural gene into it so that it can live without oxygen in the rumen (stomach) of ruminants (i.e. cattle, sheep, goats). This prevents them from dying when they ingest plants which contain the fluoroacetate poison i.e. Georgina Gidyea and Heartleaf Poison bush. It is a world first.

- 1. It is a natural bacteria inserted with a natural gene. It only lives in the stomachs of ruminant animals and possibly pseudo ruminants, but not in camels, dingoes, birds, humans etc.
- 2. The bacteria only lives without oxygen and it dies within 5 minutes of coming into contact with oxygen i.e. being passed out in faeces, or in an abattoir if the stomach is accidently cut open.
- 3. Research has shown that it totally lives in the stomach of the animals and doesn't affect the meat or milk etc. of the cattle, sheep, goats. None of these products are therefore classed as "genetically modified".
- 4. Its release would prevent the deaths of thousands of cattle a year. This would increase Australia's yearly meat production.
- 5. It would greatly increase the productivity of many enterprises in central, northern and western Queensland, in the Northern Territory, and Western Australia. It could also be exported to other countries such as Brazil and South Africa where they also have plants containing fluoroacetate poison.
- 6. Its release would also be a great animal welfare benefit.
- 7. Currently, thousands of hectares of country where Heartleaf poison bush grows, are fenced off and either not used at all or only used in an emergency situation. If the bacteria could be released, many thousands of hectares would then become productive country for even more meat production.

Not only could this bacteria improve the efficiency of livestock production, the technology used to develop it has the potential to be used elsewhere. The same bacteria which can successfully live in the rumen (stomach) of cattle could be inserted with other genes to fight other types of poisoning or disease; or to break down currently poor types of edible grasses or plants to make them much more useful as livestock feed.

Where it stands at present is that an application needs to be commissioned and taken to the OGTR (Office of the Gene Technology Regulator) to apply for its release. We livestock producers do not have the expertise or finance to carry this out. Given the great benefit to the livestock industry, we would like to see the federal government support and encourage the livestock industry organisations to proceed with this bacteria and technology.

If necessary, a meeting could be held first to have an in depth look at all aspects of the organism and the effects and perceptions that might arise from its release. This meeting should definitely have Dr Keith Gregg, the main scientist who developed it, (currently working at Curtin University in WA) present, because to date, there has been so much misinformation about it.