

Submission to the Agricultural Competitiveness White Paper

Submitted by Margaret House on behalf of the Desert Uplands Committee

In large areas of the Desert Uplands bio-region, located in central western Queensland, and also in parts of W.A., there is a native bush named Heartleaf. This plant contains Fluoroacetate poison which is responsible for the deaths of thousands of head of cattle every year. Some years, such as this past very bad drought year, there are a lot more deaths than other years.

There are also many **thousands of cattle deaths** which occur annually out in the Georgina Gidyea country, in far western Queensland and in the Northern Territory from the same Fluoroacetate poisoning. The poison occurs in the Georgina Gidyea foliage and tree at certain times of the year, not all year round. However, what makes it so deadly out there is that this tree and the foliage and bark are normally a very good and very nutritious food source for cattle. Suddenly, at certain times of the year, usually when it is of greatest food value, it becomes very toxic and thousands of cattle die. Between the Georgina Gidyea country and the Desert Uplands region there could be up to 25,000 cattle deaths per year.

There has been developed, over 10 years ago, a **rumen bacteria**, which has been proven to **prevent cattle deaths** from this poisoning. This Rumen Bug breaks down the poison in the rumen to a non-toxic level. It was developed by scientists under the supervision of Professor Keith Gregg, at the University of New England, by inserting a natural gene into a naturally occurring soil bacteria so that it would live without oxygen in the rumen of cattle, sheep and other ruminants. Research has been carried out on it at the University in Western Australia (where they also have the Heartleaf plant), Victoria where CSIRO tested it, QLD and NSW, by reputable scientists and their teams. It has been proven to prevent deaths in all the animals it was tested on. In the early days the research was funded mostly by landholders themselves, some money from State Governments, then later by Meat and Livestock Australia.

The Bug is regarded as “genetically modified”. Only the Bug is GM, **NOT** the animals in which it resides, nor their meat, milk, wool etc. However, because it is a “GMO” organism and because of the negative publicity surrounding GMOs, it has been left in storage for the last 10 years.

The Desert Uplands Committee and the landholders in the Georgina Gidyea country would now like to have the Federal Government and MLA to take this Rumen bug to the OGTR (Office of Gene Technology Regulator) board to apply for its release. If this occurs then potentially thousands of cattle every year will be prevented from dying from Fluoroacetate poisoning. The cost of production on properties in the Desert Uplands bio-region and in the Georgina Gidyea country will be greatly reduced.

It will also enable many thousands of hectares of country, which are currently locked up and not used because of the poison bush or trees which grow there, to run cattle and to be productive. Further, currently in this country that is locked up, there are almost no pasture

and infrastructure improvements. Once this poisoning problem is solved then improvements can be carried out and the productivity of this country will be even further enhanced.

In order for all this to happen we need all the data on the Rumen Bug to be gathered together, and then taken to the Gene Regulation Board to apply for its release. This Rumen bug is a world first and it also has **other great potential!** If other genes can be discovered and inserted into the bug it could be used to combat some fatal livestock diseases; or to enhance digestibility of edible but poorly utilized vegetation. It will thus save more cattle lives and make the long tough tropical grasses of northern Australia much more productive. It could even potentially turn the northern country into fattening country instead of just breeding country as it is at present.