



R&D Snapshot

Advancing Livestock Waste as Low Emission – High Efficiency Fertilisers

Investigators: Dr Matthew Redding and Dr Chris Pratt Department of Agriculture and Fisheries, Queensland Partners: University of Queensland, Feedlot Services Australia, Waters Consulting

Purpose:

- Examine the ability of sorbers (material added to manures such as vermiculite and bentonite) to reduce GHG emissions, improve plant yield and generate potential carbon credits

Take home messages:

- Sorbers (manure + smart sorber technologies) applied to different types of soil/manure mixes can decrease nitrous oxide and ammonia emissions by up to 60%
- Sorbers may reduce the need for conventional fertiliser, whilst potentially improving seedling vigour and crop yield by up to 20%
- Sorbers may boost carbon retention in the soil by about 50%
- A cost benefit analysis showed that the current carbon credit scheme was not economical for sorber application, but this shouldn't be looked at in isolation given the other potential benefits to producers that were identified (for example reduced GHG's and fertiliser use and improved soils and crop vigour)
- A follow-up project is now looking to develop alternative fertilisers from piggery effluent and solids

Additional information:

- Contact Janine Price at janine.price@australianpork.com.au or 02 6270 8827

APL Project 2012/2402.465 – Advancing Livestock Waste as Low Emission – High Efficiency Fertilizers

