

R&D Snapshot

Methane to Markets (M2M) – Methane recovery and use at a Grantham piggery

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Purpose:

- Collect ongoing performance data for the operation of a partly covered anaerobic pond
- Investigate options for cleaning biogas and its use on-farm.

Take home messages:

- Biogas yield was 65m³/day with a 21% increase in summer and a 23% decrease in winter
- Composition was 69% methane, 30% carbon dioxide and 2000 ppm hydrogen sulphide
- Corrosive nature of biogas suggests that left untreated would affect life expectancy of appliances (eg. combustion engines, boilers)
- Removing the hydrogen sulphide by dry scrubbing (iron sponge/commercial media) is anticipated to be a cost effective technology for small to medium sites (research continuing)
- Approximately 30% of gas energy can be converted to electrical energy using a generator and can recover 50% of gas energy as heat from engine cooling systems and exhaust
- At this site, using biogas to run a boiler for farrowing shed heating has a potential saving of \$23,000/yr in LPG, plus opportunities to generate carbon credits
- Ensure compliance with gas safety regulations as retrofitting can be costly.

Additional information:

- Click [here](#) to view the full report, presentation and fact sheet
- Contact Janine Price at janine.price@australianpork.com.au, 02 6270 8827 or Alan Skerman at DAFF Qld alan.skerman@daff.qld.gov.au, 07 4688 1247
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