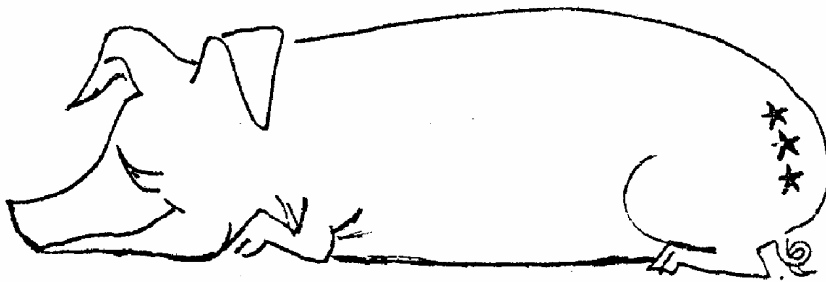


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## VIEW FROM THE COUNTRY

# Brass from pig muck

Robin Clarke



A few years ago the bright-eyed bearded wonders who dreamed up the idea of alternative technology thought they would solve the world energy problem by turning their own muck into methane. They did have a point. If you compost animal muck anaerobically and at the right temperature, you get off a gas which is 65 per cent methane. And that, as all North Sea enthusiasts never tire of telling us, is a very good fuel.

Unhappily, the human animal is not a very prolific shitter. You and I produce only a paltry half pound of the stuff per day. If you digest that under perfect conditions you might, with luck, get off a whole cubic foot of methane. Its calorific value would be something less than one-fifth of a kilowatt-hour, or about 680 Btu, with that you could boil almost precisely three pints of water a day. Although I'm a pretty conservative user of energy, I have to declare that three pints of boiling water will neither cook for me, heat my house, nor run my motor vehicle. End of story?

Well not quite. Faced with this insuperable problem, the AT boys began to play around with goats, house cows, the cottage pig and a few hens. The net result of all that was if you ran a small smallholding, and spent most of your day running after your animals with bucket and shovel, you might produce enough methane to cook from and heat your water. I have to confess I don't know anyone who does it—and the whole methane idea began to sink back into the oblivion whence it came.

Surprisingly enough, it has re-emerged only a few miles from where I live at an intensive pig-farm. The farm is near a creamery, and the 4000 pigs are fed almost entirely on the surplus whey.

The waste they eliminate is probably one of the most revolting liquids known to man—runny, yellow and extremely foul in

odour. Worse, each pig produces three gallons of the stuff every day. So every day the pig farmer pumps 12 000 gallons of it into a big lagoon where it festers quietly until he gets round to spraying it onto his pasture.

This activity has produced much righteous indignation. The local authority has been called in, complaints filed, and every attempt made to bring this obnoxious pork factory to a standstill. And this, no doubt, would have happened were it not for the efforts of two enterprising lads, James Murcott and Michael Chesshire, who run a tiny glass fibre workshop, making things like sheep dipping baths for farmers.

It so happens that 18 months ago Murcott built a small methane digester running off bullock manure. And Chesshire recently retired, somewhat prematurely at the age of 23, from the CEBG's nuclear laboratories because he was more interested in methane than fission.

At their own expense, and without the benefit of any kind of grant, Murcott and Chesshire installed a 1500-gallon methane digester at the pig farm. They made it in glassfibre, took elaborate precautions to stir the slurry, heat it to the right temperature and automate the whole process. It worked. It turned the waste from 50 pigs into the equivalent of 1.3 gallons of diesel fuel a day and—more important—solved the slurry problem. What comes out of the digester smells even quite pleasant, has much lower oxygen demand, and when sprayed on pasture produces a faster and thicker growth than the untreated pig muck.

Murcott and Chesshire are now going into production with 8000-gallon digesters, designed primarily to solve the effluent problem associated with intensive animal breeding and fattening. The economics of what they propose is fascinating. They reckon to retail the digester, plus all the ancillary equipment needed to make it fully automatic, for as little as £1350. Each of these digesters would deal with the muck from 250 pigs—capital cost per installed pig about £5.50. Any intensive pig farmer faced with the choice of spreading that, or closing down (which may well soon be the only choice) would gladly fork out.

But each of these digesters produces methane equivalent to about 7 gallons of diesel fuel a day—which Murcott and Chesshire compute is worth in the region of £800 a year. So spend £1350, solve your effluent problem, and produce an income of £800 a year (presumably tax free, like any other AT source of energy). It all sounds like remarkably good business.

So to anyone who wants to make some quick money, and produce a lot of food at the same time, my tip is this: buy a house and about five acres near a creamery. Install intensive pigs with glassfibre digesters. Then get seriously into intensive horticulture, heating your glass houses or polythene tunnels with the methane from the pigs. Fertilise your crops with the digested sludge. It has to be a winner.

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