



Food Animal Initiative

ENVIRONMENTS FIT FOR ANIMALS FIT FOR THEIR ENVIRONMENT

FAI Technical Datasheet P5 - Provision of high fibre diets for pigs - Update August 2005

Animals need feed which not only allows them to grow and reproduce but which promotes healthy gut function and allows them to feel full and satisfied in relation to their stimulus to eat. The issues of feeding low fibre diets are well recognised in many species as high energy and high protein diets without adequate fibre predispose to gut diseases such as diarrhoea and ulceration and other metabolic problems.

'the facts.....'

Legislation in the UK requires that all farm animals are fed a diet;

'in sufficient quantity to maintain them in good health, to satisfy their nutritional needs and to promote a positive state of well-being'.¹ Additionally all dry pregnant sows and gilts must; 'be given a sufficient quantity of bulky or high fibre food as well as high energy food to satisfy their hunger and the need to chew'.²

Stolba and Woodgush showed in 1989 that pigs in natural environments normally spend about two thirds of their day searching for food, chewing and grazing. Even if they are provided with all the calories and nutrients they need in the form of a concentrate feed which they can eat in minutes they will still look for and chew food. This explains why pigs in barren environments chew bars and each other when there is no alternative.

Because pigs have been selected for growth and size their dams cannot be allowed to feed ad lib during the dry period as they would become too fat. Many dry sows therefore always feel hungry and frustrated. Providing them with high fibre diets allows them to feel 'fuller', spend time chewing their food and improves their welfare.³

Pigs at slaughterhouses are often found to have gastric ulceration which is a painful condition and an indication of poor gut health. Gastric ulceration is linked to stress, periods spent without feed and the feeding of fine particle size feeds.⁴

The feeding of high fibre diets to pigs has been studied but uptake has been limited as this is not easily carried out in many current systems.⁵ Practical problems are providing sufficient trough space and getting bulky often moist feed to large numbers of pigs.



Gloucester sows enjoying silage, barley & beans

'.... the FAI response!'

Feed for pigs is grown on the farm and is a mixture of silage, wheat or barley and beans with a vitamin and mineral balancer. The ratio of these ingredients is varied depending on the stage of production and the quality of the silage. Lactating sows require higher energy and protein while dry sows have more fibre and are easily maintained on silage alone.

The current unit comprises 30 Gloucester sows which are served by commercial boars. Pigs are finished in 170 days at average 100kg liveweight which compares favourably with other growing systems. Costs of production are currently £1.22p per kg dwt compared to £1.05p per kg dwt for standard pork. With economies of scale it is estimated that this cost can be reduced further.

Faeces are very dry and do not have a strong odour keeping the living environment more hygienic for the pigs and improving conditions for farm staff. Pigs are fed using a Keenan wagon as described for ruminants in TDS C2. Work is being carried out to improve feeder design and to reduce waste.

1. Welfare of Farmed Animals (England) Regulations 2000 (SI 1870) Schedule 1, 22
2. WFAR Amendment 2003 (SI 299) Schedule 6, 42
3. Ramonet Y et al 1999 Journal of Animal Science 77: 3, p591-599
4. Lee PA & Close WH 1987 Livestock Production Science 16: 4, p395-405
5. Professor Sandra Edwards, Newcastle University, Feeding Organic Pigs ISBN 0 7017 0131 5



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