

Pig Case Study Australia 3

Bedded indoor group system for dry sows, Glenesk , Perthville, New South Wales

Mainly intensive, small-sized unit switching to loose-housed sow system

Glenesk piggery is an intensive farm, which has recently received a Federal Government grant to switch from sow stalls to a newly built loose-house system. The aim is to improve the welfare of the sows with the hope that this will lead to better performance through improved sow condition and piglet health.

Sow stalls consist of a steel frame that completely surrounds the animal in an individual enclosure. They reduce costs by housing many animals within as little space as possible. Sow stalls have a feed trough to the front and a slatted floor to the rear that makes management easier and labour costs cheaper. Each sow is fixed in one place so that any treatment such as veterinary care can easily be given to each individual sow.

Sow stalls were designed to prevent the stress and injuries caused by aggression between sows.

Despite these advantages, the sow suffers as a result of not being able to carry out her natural behaviour. She is unable to:

- Walk and exercise
- Turn around
- Interact with other pigs
- Perform other important behaviours such as foraging



The sows have plenty of deep bedding for foraging and gut fill

The building of the loose-housing system for the sows was funded by a grant as part of the Federal Government's 'AAA - Farm Innovation Program'. Glenesk piggery was one of 33 successful applicants sharing in grants totalling Aus\$3.5m under the fourth round of funding.

According to the Agriculture, Fisheries and Forestry Australia website:

'Glenesk Piggeries of Perthville, NSW, will use a purpose-designed and built shed for housing dry sows after mating, together with a unique trickle-feeding system to improve animal welfare and increase productivity. Traditionally, dry sows are confined to stalls where they are unable to turn around, are fed by hand or automatically, with the whole ration being dispensed at once. Where loose housing is used, with groups of up to 80 pigs in the one shelter, the more aggressive animals take the bulk of the feed. This system will house sows in groups of five, with specially designed stalls dispensing measured amounts of food in a controlled manner. The use of straw bedding will improve hygiene and odour, and the straw itself can be recycled, e.g. for compost. It is expected this system will improve sow condition and therefore improve piglet health, while addressing animal welfare concerns.'



The sows have ad libitum access to water

The program states that the grant will be used to meet the costs of building a specially designed shed and installing an automated trickle feed system.

Information sheets on outcomes of the project will be widely disseminated. Other demonstration opportunities, such as field days and site inspections, will be used to inform the industry.

The new shed at Glenesk had to be purpose built for loose housing dry sows after mating. One of the main problems in loose housing systems is how to feed the sows. If food is simply thrown into the pen, competition for food leads to fighting and weaker individuals get less than their fair share.



The sows are fed using a trickle feed system



The feeders are separated by short barriers to reduce aggression at feeding

To overcome these problems, a unique trickle-feeding or 'biofix' system was installed into the building. Each sow has a separate feed area, partially separated by a shoulder barrier. The system delivers feed at a slow and consistent rate to all the sows in a group at the same time. Sows soon settle to the system and stay and feed in their own area. If a sow was to leave its area and bully another sow, she would actually lose out in terms of food. This is because more food accumulates in the abandoned area than she is likely to obtain by stealing from another. Sows soon learn that bullying isn't worthwhile.

The farm at Glenesk has 70 sows that are all gradually being moved into the new shed. The system houses sows in groups of five in pens measuring approximately 3x6m. This group size is small enough for them to form a stable hierarchy so that aggression is reduced.

The pens are deep-bedded with straw. The enrichment allows the sows to carry out foraging behaviour and can provide a good source of fibre to bulk out the diet. The use of straw bedding is also designed to improve hygiene and odour. The straw and manure can then be recycled for compost.



The sows have room to move around and exercise

The owners of the farm have noticed that the sows return to good body condition more quickly in the new facility and appear to be more content. There is now none of the lameness that was a significant problem when the sows were housed in stalls. The owners were expecting better production performance from the now stronger and healthier sows, but it was too early to tell.

All sows born and reared on the property have their tails intact because biting is not a problem.

The key welfare aspects for the sows are:

- Loose housing for freedom of movement and exercise to reduce lameness
- Deep straw bedding for foraging and supplementing the diet
- Trickle feeders to reduce aggression at feeding
- Sows kept in small groups which is natural for the species
- Improved condition and reduced lameness compared to previous sow-stall system

At present, the rest of the rearing systems on the farm are intensive.

Indoor pig production system	
Date of visit	14 July 2004
Certification scheme	Independent producer
Number of sows	70
Breed	Large White/Landrace
Food	Bought in and mixed on farm
Average and maximum farrowings per sow	
Farrowings per year	
% piglets stillborn	
% live born piglet mortality	Total mortality including stillbirths = 26%
Average Number of piglets weaned per farrowing	8.5
Mutilations	Teeth-clipping. No tail-docking or castration
Weaning age	4 weeks
Growth rate	
Food conversion rate	
Weight when sold on or slaughtered	60-66kg
Transport to slaughter	2.5 hours
Price to farmer	At the moment, 'breaking even' because of drought
Market	Conventional pork
Number of stockpersons	2 part-time
Number of inspections	2 per day
Health problems	None observed or reported
Other welfare issues identified	Mutilations (teeth-clipping). High piglet mortality. Intensive systems used for rest of pig lifecycle. Weaning age