Management

by Stuart Lumb

Artificial insemination advances

Due to a combination of factors the UK pig industry is not what it used to be. The UK, however, is still home to many of the world's top breeding companies and AI is a key part of their breed improvement programmes. In addition to selling boars the top companies operate their own studs with semen being shipped all over the UK and abroad. These studs have increased substantially in size over the last five years as the use of AI in the UK has increased dramatically. Ironically some of this increase can be attributed to the massive foot and mouth disease outbreak in 2001. The normal supply of replacement boars was banned and so many producers had to turn to AI.

Unit size in the UK has increased and with it an increase in on farm or DIY AI. Like many other countries the UK suffered the vagaries of PMWS and many units revamped their management switching to batch farrowing, generally on a three or five week basis. This also resulted in an increase in demand for AI.

Ray Rochester has had a life long interest in AI and reproductive physiology and has strong links with the French AI industry. According to Ray a number of UK producers still cling to the 'belt and braces' philosophy of using both boar and AI.

This is anathema to Ray, who says that producers should have the confidence to rely purely on AI and just keep their boars for heat detection. Poor insemination technique may be at the root of the problem and Vetsonic puts on regular training courses to ensure that producers learn how to inseminate properly.

"The key to good results is accurate heat detection and in many cases the first service takes place far too soon," commented Ray. Also too many inseminations over the service period can actually be detrimental to both litter size and conception rates.

The advent of modern diluants (mainly 3/5 day) has improved the quality of semen and there is absolutely no reason at all why AI doses should not reach the farm in perfect condition – the technology is there and producers should have every confidence in the quality of the AI offered.

Techniques have moved forward of late, from balloon catheters to the numerous deep intrauterine models.

Whichever catheter is used the operator must have been correctly instructed in how to use it – a correct technique is vital for safe, successful results. It also pays to spend a little more on catheters in order to get good

results. In Ray's opinion, we are only just at the beginning when it comes to the deep intrauterine technique.

Furthermore, he firmly believes that single service AI is just around the corner. This would have massive implications in terms of reducing stud boar numbers and increasing the speed of breed improvement.

Housing of AI boars

The buildings that have evolved over the years are constructed of a variety of materials all geared to enable the pig to grow cost effectively. The building shell generally is a sandwich composed of:

- An external weather proof cladding.
- An internal surface which has in places to be pig proof.
- Insulation being the 'meat' of the sandwich.

In the UK in the late 1960s the concept of the package deal building came into being. The walls and roof were made of panels and were constructed in a factory.

These were then brought to the farm and fixed on to a low block wall base. In those days the exterior material used was marine plywood which was painted, generally brown or green depending on the manufacturer.

Many of the buildings erected at this time are still in use – the key point being that they have been regularly maintained and kept weatherproof.

Nowadays, plastic coated metal is preferred, available in a variety of finishes and colours. Fibreglass used to be the standard material for insulation. However, it is not easy to handle.

Also over time it settles and compresses thereby losing its insulative properties – after all, insulative materials are just a mesh containing tiny air pockets and compressed fibreglass contains no air pockets.

Also fibreglass that was laid in the roof space often got eaten by rats. Expanded polystyrene is a more versatile insulative material as it comes in sheets of varying thicknesses, is freestanding and can be cut and shaped.

Plastic materials are often used for the internal wall surfaces. These tend to have a polished finish, help lighten the interior of the building and, most importantly, are easily cleaned and disinfected.

Where pigs can make contact with the walls more pig resistant products are used, for example stainless steel or glass fibre sheeting, although glass fibre is not as impervious as stainless steel.

A PortaPig portal frame building.

Plastics are increasingly being used inside pig buildings, for example as pen divisions, replacing metal. A key aspect again is the ease of power washing of these plastic surfaces.

Breeze, or cinder blocks are often used to build the walls of structures where heat retention is not so critical, for example dry sow yards.

If extra strength is required then steel rods can be inserted vertically down several courses of blocks.

Also the insulative properties of breeze blocks have improved over the years.

The old adage 'you get what you pay for' applies to pig buildings as to most things. It is no good spending lots of money on top quality breeding stock, putting them in buildings made of inferior materials and wondering why they do not perform well! ■

References

- A. M. Warkup Ltd, East Yorkshire.
- PortaPig, N. Ireland.