

PigNewsletter

Invitation to Pig Event

The Northern Ireland Pig Event will be held at the Agricultural Research Institute of Northern Ireland, Hillsborough on Wednesday 3 November 2004. The event will commence with a video tour of the pig unit at the Research Institute. This will feature information on the day-to-day management of the unit and highlight recent developments e.g. batch farrowing, new management techniques for AI. The video will be interspersed with short presentations on research and management including:

- Gilt management;
- Control of PMWS;
- Group size for weaners and finishers;
- Benchmarking carcass quality;
- Meat quality.

Other areas of interest that will be featured at the event through poster presentations will include:

- Pig management and husbandry;
- Pig nutrition;
- Herd health;
- Welfare;
- Greenmount Campus pig benchmarking;
- Pig identification;
- Slurry management and storage;
- Legislation;
- Consumer trends.

All involved in the pig industry are invited to attend. Two sessions will be held, the first commencing at 11am, the second at 7pm.



Reducing Variation in Weight at Slaughter

Large variations in weight within groups of pigs at slaughter leads to either:

- (1) Inefficient use of resources, as some pigs have to be retained longer than others; or
- (2) Large variation in carcase weight, which is a problem for the processor.

Recent UFU/DARD funded research at ARINI, Hillsborough, investigated whether it was possible to reduce variability in weight at slaughter, through sorting pigs into even weight groups, when weaning at four weeks of age, or at the start of the finishing period at ten weeks of age. Pigs were housed in mixed-gender groups of ten animals.

Research findings

- Sorting pigs into even weight groups at weaning did not have any benefits in terms of reducing variability in weight at slaughter. This was due to high variability in growth rate during the growing period.
- Sorting pigs into even weight groups at the start of the finishing period did reduce variability in slaughter weight. This meant a one week reduction in the time taken for all pigs in a group to reach slaughter weight.

Conclusions from this study

- Sorting by weight at the start of the finishing period makes more efficient use of resources.
- Future research should concentrate on reducing variability in growth during the growing period, so that sorting by weight at weaning leads to reduced variation in weight at slaughter.

Return to Repeats!

An increase in repeats in late summer and early autumn is a predictable feature of pig production. However, some pig units regularly seem to be affected more than others, with repeats above 'acceptable' levels. To complicate matters further, some units have reported a 'repeating storm' with a high proportion of served sows returning to heat.

Using service and farrowing records the average farrowing rate should be calculated on a regular basis.

A breakdown of the length of time between first service and repeat should also be calculated for each sow. These two valuable pieces of information give an insight into the 'normal' levels of repeats. The extent of a perceived problem can then be quantified. Repeats can also be categorised as regular (every three weeks or every six weeks) or irregular, helping to identify possible causes. These can include:

- Incorrect sow condition at service;
- Poor heat detection or service routine;
- Incorrect semen storage;
- Infertile boar(s);
- Stress at service or early gestation;
- High levels of aggression during the dry period;
- Disease or infection.

Repeats can have a devastating effect on unit output and hence profit. At today's prices each empty day is worth approximately £1.10. Therefore, it is important to know the extent of the problem and take corrective action.

Gilt Management

Good gilt performance is fundamental to the successful management of the modern pig unit. The following paragraphs outline the gilt management programme undertaken at the Agricultural Research Institute of Northern Ireland (ARINI).

Replacement rate of sows

Sows in parities 4-6 have been shown to be more productive than sows in parities 1-3 with total numbers born being 35.5 and 32 respectively. To maintain sow numbers and maximum production, the annual replacement rate should not exceed 40%. This ensures that the number of sows in parities 1-3 is not greater than 55% of the breeding herd.

Pre-oestrous gilt management

At ten weeks of age, first cross Landrace x Large White gilts are selected as possible replacements in the sow herd. The gilts are housed separately from the rest of the growing and finishing pigs. They are kept on solid floors and are allocated generous pen space (1.45m² per pig to 95kg liveweight and at least 2.8m² per pig at first mating). At 170 days of age (120kg) the gilts move housing to bring them in close proximity to a boar. In order to stimulate oestrous to synchronise their reproductive cycle with that of the batch farrowing herd, the gilts are moved to the presence of a boar on the Monday of a 'weaning week', and during this week they are allowed into the same pen as the boar for approximately 15 minutes per day. The length and intensity of photoperiod are key factors for the onset of oestrous. The light intensity should be sufficient to read a newspaper and should be maintained for 12-16 hours per day. Employing these management practices results in approximately 80% of the ARINI gilts coming on heat within 10 days and 90% within 14 days.

Mating

Gilts are not mated until they are at least 210 days of age (140kg) and showing their second heat, as the number of ova released significantly increases from first to second oestrous, therefore significantly increasing the numbers of pigs born per litter. A backfat of 16-18mm or body condition score of 3.5 (on a 1-5 scale) is optimum at the time of mating.

Feeding and nutrition

The diet of the gilt is specifically designed (DE 13.2 MJ/kg, CP 13.7%) to supply extra minerals and vitamins to strengthen the bone structure and encourage the deposition of fat in the developing gilt. Ad libitum feeding of this diet is offered from 50kg liveweight until the gilt is mated, after which the diet is restricted to 2.2kg per day for the remainder of the pregnancy.

Post farrowing management

The first litter sow at ARINI is offered a high energy (DE 14 MJ/kg), high protein (CP 18%) lactation diet. The sow is encouraged to eat approximately 170kg throughout the lactational period, which is on average 29.4 days. During lactation the sow is fed to appetite using the Stoffold feeding curve. i.e. 0.5kg of feed is offered additionally each day. At weaning, first litter sows normally have a condition score of approximately 2.5-3.0 and the subsequent average days to service is 4.5. At ARINI, savings have been made on a cheaper gestation diet for sows in parities 2-6, with these savings invested in the lactation diet described above which has proved to be overall more cost effective.

Summary

- Plan an even flow of gilts that complements herd structure.
- Plan the onset of oestrous to co-ordinate with herd farrowing patterns and set targets for mating time and frequency.
- Plan the needs of the gilt during growth and reproduction in terms of nutrition and housing.
- Always look for improvements.

Can Feed Harm Your Pigs?

Mycotoxins

The wet and warm weather, which occurred during this year's cereal harvest, was ideal for the growth of moulds. Where conditions are right moulds can grow both in the field and in store after harvest.

Moulds produce poisonous toxins called mycotoxins, some of which are harmless, but others can cause health and performance problems in pigs.

The main problems caused by mycotoxins include:

- Reduced fertility in sows;
- Reduced libido in young boars;
- Swollen red vulvas in immature gilts;
- Reduced feed intake and growth in pigs.

To prevent the growth of moulds and mycotoxins in storage it is important to purchase good quality ingredients from a reputable source. Grain should be stored at a low moisture content (14%). If grain is stored at a higher moisture content a mould inhibitor should be used. It is also advisable to empty bins completely and thoroughly clean them on a regular basis.

As problems associated with mycotoxins have already been experienced on units, producers should discuss the inclusion of a mycotoxin binder in feed premixes with a nutritional adviser.

Northern Ireland Pig Discussion Group
Programme of Events 2004 - 2005

Wednesday 3 November
'NORTHERN IRELAND PIG EVENT'
At Agriculture Research Institute - Hillsborough

2005
Wednesday 2 February 2005
'FOCUS ON DOING IT RIGHT'

Wednesday 2 February 2005
'FOCUS ON DOING IT RIGHT'
Mick Evans (International Pig Production Consultant)
Sponsor: Moss Veterinary Products Ltd

Wednesday 2 March
'SOAP BOX'
Sponsor: Boehringer Ingelheim Ltd

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