



BEST PRACTICE GILT MANAGEMENT

BEST PRACTICE GILT MANAGEMENT FOR FERTILITY AND LONGEVITY

Project Participants

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Problem

High sow turnover or replacement rate is an ongoing issue in the pig industry, which leads to a higher proportion of younger sows in the herd, a reduction in sow lifetime performance and increased herd feed conversion. Despite considerable research in this area over the last decade, little improvement has been made which may reflect the lack of dedicated gilt development protocols and their implementation on-farm.

Project

Best practice gilt management for fertility and longevity combines the findings from multiple research projects into a guide containing best practice gilt development and management recommendations.

Value for Producers

Implementing best practice gilt development and management recommendations will ensure producers reduce their average annual replacement rates and improve sow productivity and longevity.

Background

The current annual sow replacement rate in Australia is high, sitting at 56.1 per cent in 2012. An annual replacement rate of 50 per cent is considered ideal as this equates to an average herd life of two years for breeding females and 4.8 litters per sow. After allowing for sow deaths and early culling due to structural and reproductive traits and age, it is unlikely a replacement rate of less than 45 per cent is achievable.

If structural and reproductive issues can be minimised and sows can be culled after reaching at least their third or fourth parity, replacement rate and financial losses can be reduced.

Recommendations

Replacement gilt selection and development begins in the farrowing house. Birthweight, sex-ratio of the birth litter and pre-weaning growth can be used to predict gilt performance.

An average pre-weaning daily gain of greater than 125 grams improves mating and farrowing outcomes in replacement gilts. Only gilts with a weaning age greater than 25 days should be considered as potential replacements.

Selection of gilts should not occur before they are at least 20 weeks old and at a weight which will allow them to achieve a mating weight of 135 to 150 kilograms by 30 to 34 weeks of age. Gilts should have a minimum backfat depth of 12 millimetres. Structural traits such as conformation and locomotion need to be assessed to reduce the risk of lameness, as sows suffering from lameness tend to have lower number of pigs born. Producers should purchase 10 to 15 per cent more gilts than they require so they can cull them depending on their puberty response.

From the age of 25 to 38 weeks, gilts should be exposed for 20 minutes at least once daily to a mature boar which is performing regular matings. This exposure should occur in small groups of less than 12 gilts per boar and should involve full boar contact. About 85 to 90 per cent of gilts should be cycling by 30 weeks of age due to puberty stimulation by a boar. Cull the remaining gilts as they are sub-fertile.

Gilts should be fed a gilt developer diet ad libitum from selection until mating. If there are heavy gilts at mating, they should be restricted to only 80 to 85 per cent of ad libitum intake. All gilts should receive ad libitum feeding of a good quality gilt developer diet two weeks prior to breeding to achieve the 'flushing effect' and improve egg quality.

Gilts should be mated at their second cycle, about three weeks after they reach puberty. The ideal weight for mating is 135 to 150 kilograms and gilts should be between 30 to 34 weeks of age. Once mated, gilts should be mixed as early as possible once the period of standing heat has finished to reduce aggressive behaviours. A standard dry sow or gilt developer diet should be fed at 2.4 to 2.8 kilograms per day for the first four weeks of gestation. The same diet should be fed for the remainder of gestation at 2.2 to 2.5 kilograms per day. Bump feeding or increasing feed during the last three weeks of gestation may improve piglet birthweight however, this should be discussed with a producer's nutritionist.

More Information

- For the full manual:

Electronic: <http://australianpork.com.au/wp-content/uploads/2019/09/2019-09-Best-Practice-Gilt-Management-for-Fertility-and-Longevity.pdf>

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