



MAXIMISING THE WELFARE OF SOWS IN GROUP HOUSING

MIXING SOWS – HOW TO MAXIMISE WELFARE. GROUP HOUSING STRATEGIES FOR MIXING SOWS POST-WEANING OR POST-INSEMINATION

Project Participants

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Problem

In 2010, the Australian pork industry agreed to phase out the use of gestation stalls. Moving away from gestation stalls to loose or group housing of sows or mixing groups of sows post-weaning or post-insemination comes with many challenges which can affect productivity, sow nutrition and welfare, and increase stress and aggression.

Research

This paper discusses the major factors of sow group housing that may impact the sow and her welfare both post-weaning and post-insemination. It presents guidelines on how sows may be moved into groups after weaning and post-insemination to ensure optimal welfare.

Value for Producers

While group housing provides many welfare advantages to sows including freedom of movement for exploration and socialisation, some sows may suffer excessive aggression, stress, and injuries from other sows. By implementing best practice management for mixing of sows, producers can reduce the injuries and stress which occur as a result of aggression, improving welfare and reducing the impact on production costs and reproductive productivity.



Background

Gestation stall-free refers to sows being loose-housed in groups with the ability to get up and down and turn around from five days after insemination or mating until being moved into the farrowing house.

Aggression in group housing is reported to peak about two hours after mixing and decreases after a dominance grouping is formed, reaching low levels within one to two days post-mixing. The rate of decline of aggression is impacted by several factors including pen space allowance, barriers, group size, feeding level, fibre ingredients in the diet, access to foraging materials, feeding system, group dynamic, size and parity of the sows when mixing, and stockmanship.

Mixing after weaning can cause issues due to aggression and stress associated with sows on heat. Mixing post-insemination needs to be completed carefully, often within five days post-insemination, to avoid the critical period immediately after mating and during the second and third weeks of gestation when pregnancy is established.

Recommendations

The overall aim when mixing sows is to introduce sows in a setting in which timid sows can avoid aggressive ones while also allowing the dominance grouping to quickly form with minimal risk of injury and stress.

A mixing pen with the following may help to reduce aggression:

- about 4 m² per sow space allowance for sows to turn around and for two sows to easily pass side-by-side
- establish the group based on size and parity
- provide easy access to feed and increase feeding levels to 4 to 5 kg/sow/day for the first few days after mixing as the feeling of fullness reduces physical movement and may reduce aggression
- include highly fermentable fibre ingredients which have high water holding capacity in the diet to increase fullness and reduce physical activity in sows several hours after feeding
- ensure the sows enter the mixing pen after being fully fed
- use a solid visual barrier at least 4-5 m away from the side walls of the pen to reduce frequency of aggressive interactions
- provide straw or rice hulls as a distraction or a good foothold on the ground
- ensure there are no protruding objects or ridge edges which may cause injury and no tightly confined areas where a sow could be cornered.

More Information

For the full manual:

- Electronic: <https://australianpork.infoservices.com.au/items/MIXINGSOWSMANUAL>
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