

1C-115: *Nutritional Management Strategies to reduce aggression at mixing of unfamiliar sows*

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Aims and Objectives:

This project compared strategies for reducing aggression at mixing of sows by:

- 1) Implementing a higher feeding level of 4.0 kg/day and the use of enrichment in the form of a supplemental nutrient block,
- 2) Feeding a diet containing Sugarbeet pulp (SBP) and Magnesium oxide (MGO), alone or in combination, prior to and during mixing.

Key Findings

In Experiment One, chase behaviour decreased and lying time increased when the higher feeding level was imposed or when the supplemental nutrient block was introduced at mixing.

In Experiment Two, the inclusion of 20% sugarbeet pulp and/or 0.2% magnesium oxide in the diets of sows a couple of days prior to mixing, failed to have any significant effect on the behaviour or welfare parameters that were measured in the experiment. The feeding of these types of “satiety” products may only be effective if they are included in the diet at higher inclusions

In both experiments, fighting and fresh scratch injuries often significantly decreased within a couple of the days after mixing, providing further evidence that the sow quickly adapts to group housing.

It is recommended that the supplemental block be examined for longer term use during gestation to possibly improve satiation and welfare of sows in group housing systems.

Application to Industry

Providing sows with either an increased feeding level of 4.0 kg/day or the use of a supplemental nutrient block would appear to be useful to decrease foraging behaviour at feeding time which in turn decreases aggressive chase behaviour. Although most aggressive behaviours associated with feeding time and mixing unfamiliar sows were not affected, the supply of the supplement block may provide enrichment for sows in group housing.

The feeding of products such as sugar beet pulp may only be effective in decreasing aggressive behaviour in group housed sows if included in the diet at higher levels, which may not be commercially accepted. Fighting time associated with mixing unfamiliar sows is highest on the first day of mixing and greatly decreases by the following day. Thus it is suggested that strategies to reduce fighting may need only be considered for the very early stages of mixing.