



Project Number & Title: *3A-113 Welfare implications of group lactation at various ages*

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Aims and Objectives: To compare the welfare implications of grouping sows and their litters during lactation at 7, 10 or 14 days postpartum, in comparison to sows and litters that remain in farrowing crates.

Key Findings

- Compared to farrowing crate housing, sows and piglets in group lactation pens were more active and interacted more frequently, and piglets showed less manipulative harmful behavior towards other piglets.
- Nursing was disrupted in group lactation pens, piglet average daily growth was lower (ADG), cortisol and post-mixing injuries were higher for sows and piglets and piglet mortality was higher, compared to farrowing crates.
- There were positive effects of group lactation housing on piglet aggressive behaviour (i.e., reduced aggression post-weaning), but no effects on growth, FCR or mortalities in the post-weaning period.
- In general, there were no differences in the behaviour of sows and piglets mixed at 7 or 14 days postpartum, but the younger piglets were mixed into group lactation, the higher the mortality. Further, piglets mixed at 7 days of age had reduced ADG than those mixed at 14 days, but there was no difference in the ADG of piglets mixed at 10 or 14 days of age.
- Sows mixed at 14 days postpartum nosed other sows more frequently, but lost more weight and were lighter at weaning than those mixed at 7 days postpartum. The weight of sows mixed at 10 or 14 days postpartum did not differ

Application to Industry

- Group lactation housing allows for the development and expression of highly motivated maternal behaviours, and supports the development of social behaviour in piglets, resulting in a reduction in the prevalence of harmful manipulative piglet behaviours and lower aggression post-weaning. However, this comes at a cost as cross suckling disrupts sow nursing resulting in reduced milk intake, and possibly piglet hunger and sow distress. Further, intra-pig aggression leads to injuries and possibly social stress. Finally, piglet mortality is higher in group lactation pens, due to a higher incidence of crushing.
- There do not appear to be any short or long-term benefits for sows or piglets in group lactation housing from 7 rather than 14 days postpartum.
- A reduction in productivity during the transition to multi-litter sow lactation housing may be unavoidable. As stock people and animals become familiar with the housing system, and research that reduces the occurrence of cross-suckling progresses, two-stage group lactation housing from 10-14 days of age may become a viable loose-sow lactation housing option that allows for the expression and development of natural behaviour in sows and piglets.