<table>
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<th>Project Number &amp; Title: 1A-113 Welfare implications of group lactation at various ages</th>
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<td>Project Leader: Megan Verdon</td>
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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 behaviour 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.