

# Social Factors Affecting Injury Levels and Behaviour of Sows in a ESF System

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## Summary

The total number of injuries detectable on sows increased until 28 days after regrouping before declining. First parity sows and post-implantation sows ate later in the feeding cycle, while first parity sows and unfamiliar sows rested in the less optimal areas of the pens. Thus, the behaviour of older, familiar and pre-implantation sows indicates that they are experiencing less stress during regrouping.

## Introduction

Regrouping is a stressful time for pigs. When sows are regrouped shortly after breeding, stress may alter behaviours and result in a decrease in farrowing rate. The severity of the stress the sows are experiencing can be reflected in injuries, eating order and resting locations. The goal of this study was to determine the effect that stage of implantation, familiarity with penmates, and parity have on the behaviour.

## Experimental Procedures

Groups of about 35 sows were regrouped into either

static or dynamic pens fed by an Electronic Sow Feeding System. Within each group, focal sows were chosen based on the following criteria: Stage of Implantation (pre < 7 vs. post > 35 days post-breeding), Familiar vs. Unfamiliar (with majority of pen mates based on previous gestation group), and Parity (1 vs. 2&3 vs. 4+). In order to determine the effect that social stress would have on the sows' behaviour the following data were collected: fresh and healed injuries on 18 regions of the body; entry order into the feeder; and, the area in the pen where each sow was resting (for three days).

## Results and Discussion

The total injury scores rose until 28 days after regrouping, at which time they started to decrease (Figure 1). There were not any effects due to stage of implantation, familiarity and parity on injury scores. As seen in Figure 2, the younger and post-implantation sows ate later in the feeding cycle than the older and pre-implantation sows. In relation to where the sows rested in the pen, familiar and older sows rested on the solid portion of the pen more often than the younger and unfamiliar sows (Figure 3). The social factors studied affected the priority of access to both the feeding station and preferred lying areas in the pen.

## Conclusion

After regrouping, the younger, unfamiliar and post-implantation sows showed behaviours indicating that they experienced more social stress than the older, familiar and pre-implantation sows.

## Acknowledgements

Strategic program funding provided by Sask Pork, Alberta Pork, Manitoba Pork and ADF. Additional project funding provided by Ontario Pork, NSERC and AAFC.

*“The behaviour of older, familiar and pre-implantation sows indicates that they are experiencing less stress during regrouping.”*

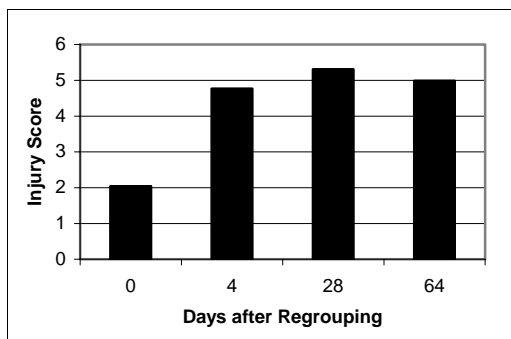


Figure 1. The total injury scores of sows on days 0, 4, 28 and 64 after regrouping into the ESF pen.

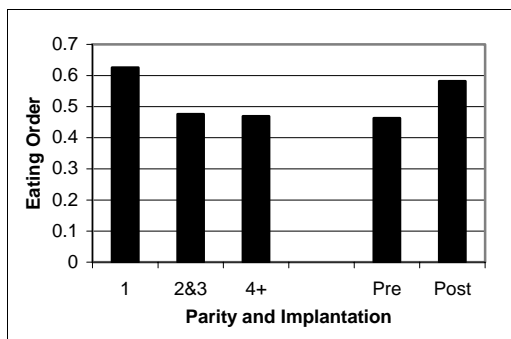


Figure 2. The effect of parity and stage of gestation on feeder entry order 4 days after regrouping into the ESF pen.

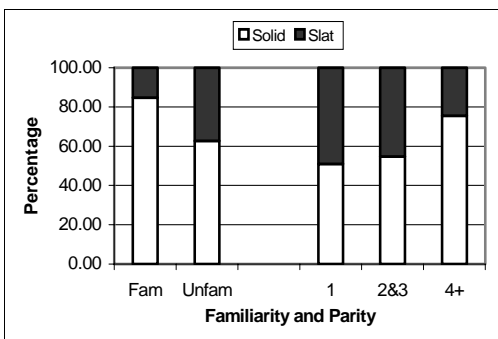


Figure 3. Impact of familiarity and parity on the relative proportion of time the sows spent lying one week following regrouping