SKIN LESIONS IN ENTIRE MALE PIGS IN RELATION TO AGGRESSIVE AND MOUNTING BEHAVIOUR IN RESPONSE TO MIXING PRIOR TO SLAUGHTER

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5. Conclusion
Mixing entire male pigs prior to transport to slaughter stimulated mounting as well as aggressive behaviours. These behaviours were not reflected in higher skin lesion or loin bruising scores on the carcass. However, skin and tail lesions scored on the carcass were correlated with scores on the farm suggesting that recording such information at meat inspection could help to inform herd health/welfare plans.

1. Introduction
Entire male pigs are more aggressive and sexually active than castrates and females. Such behaviours may lead to welfare related lesions during production. Mixing pigs prior to slaughter is common and the negative effects on welfare could be exacerbated in entire male pigs. Meat inspection is an on-going process of data collection which has potential as a surveillance tool for pig health and welfare on farm.

2. Objectives
• Investigate the effect of mixing entire male pigs prior to transport on behaviour and lesion (skin/tail injuries and loin bruising) scores
• Establish relationship between lesion scores on the live animal and lesion scores on the carcass
• Determine how well carcass lesions reflect pig behaviour on-farm and in the pre-slaughter period

3. Methodology
• 300 pigs (20/group), 3 treatments, slaughtered on 5wks (Nov ‘13 – Jan ‘14)
  • MF: entire males mixed with females (n = 5)
  • MM: entire males mixed with entire males (n = 5)
  • MUM: unmixed entire males (n = 5)
• Pigs mixed 0530h, held in treatment group for 1hr prior to transport (c. 30 min) to abattoir
• Behaviour: 1hr on farm (prior to loading) and 1hr in lairage
• 6 focal pigs/group: skin lesions at lairage + actor/recipient behaviour

Measurements:
✓ No. aggressive and mounting events
✓ Skin lesions (farm, lairage, carcass). Total score calculated by summing 6 body areas (max. score 30)

4. Results and discussion
• Mixing stimulated highest no. of aggressive and mounting events when entire males were mixed with entire males (MM) (Fig. 4)
  ![Figure 4. Effect of mixing on behaviours during holding and lairage. Differences in superscripts within each behaviour category indicate a statistical difference between treatments (P ≤ 0.05), superscripts within brackets indicate a trend (0.5 < P ≤ 0.1).](image)

• Irrespective of whether pigs were mixed or not skin lesion scores increased in all treatments between farm and lairage (P < 0.001, Fig. 5)
• Tendency for greater increase in skin lesion scores of MM pigs (P = 0.08, Fig. 5)

  ![Figure 5. Effect of mixing on skin lesions (live animal).](image)

• No treatment effect on carcass lesion scores (P > 0.05)
• No correlation between no. of aggressive or mounting events after mixing and carcass lesion scores: pre-slaughter period very short?

**Carcass lesions did not reflect pig behaviour in the pre-slaughter period**

• Skin and tail lesion scores – positive correlations:
  - Total skin lesions
    - farm – lairage (r = 0.45; P < 0.001)
    - farm – carcass (r = 0.21; P < 0.01)
    - lairage – carcass (r = 0.19; P = 0.07)
  - Tail lesions
    - farm – carcass (r = 0.18; P < 0.01)

**Carcass skin and tail lesions were correlated to scores recorded on farm:** Carcass lesions have potential as indicators of pig welfare on farm

**Data analysis**