

ASSOCIATIONS BETWEEN FOOT AND LIMB LESIONS AND FLOOR FACTORS IN PRE-WEANING PIGLETS

THE UNIVERSITY OF
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PRE-WEANING PIGLETS



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The issues

- Neonatal piglets have soft vulnerable feet and limbs
- Hard or abrasive floor surfaces cause damage to piglets' feet and limbs when suckling
- A variety of floor types are used on farms
- Is there a best floor type that minimises all foot and limb lesions in piglets?

Lesions on piglets' feet and limbs

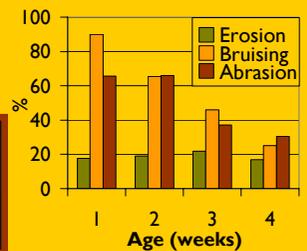
96.5% of piglets had a foot or limb lesion

The three main types of lesion and the percentage of piglets affected were:

Sole erosion	Sole bruising	Skin abrasion
19.0%	58.1%	49.3%



Prevalence of lesions in piglets aged 1-4 weeks



Materials and methods

Design

- Cross sectional study 2003-2004
- 82 GB farms / 289 litters / 2755 piglets
- Piglets aged 1-4 weeks
- Multilevel multiple logistic regression with pens clustered within farms used to identify associated risks

Data collected

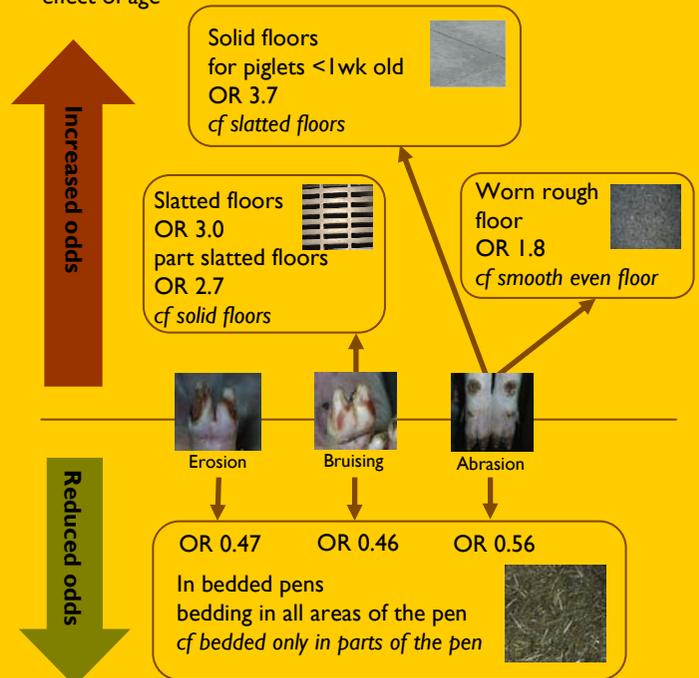
- Piglets - feet and limbs examined for lesions
- Pens - floor construction: solid with bedding, part slatted with bedding, part slatted no bedding, fully slatted no bedding
- floor condition: rough, damaged, wet
- bedding use: type, condition, depth, location

Conclusions

- No 'best' floor construction for all lesions was identified
- Compared with solid floors with bedding the odds of sole bruising were higher on slatted floors while odds of skin abrasions were lower
- This may be because a slatted floor and lack of bedding increases the pressure on the weight bearing surface of the foot while areas of solid concrete, without an adequate covering of bedding, could be rough and abrasive on the skin
- However, within solid and part slatted bedded pens, bedding in all areas of the pen reduces the odds of all lesions

Flooring factors associated with foot and limb lesions

Odds ratios (OR) from logistic models having accounted for the effect of age



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