

Heritabilities and breed differences in agonistic behaviour and adaption to an electronic sow feeder in group housed gilts

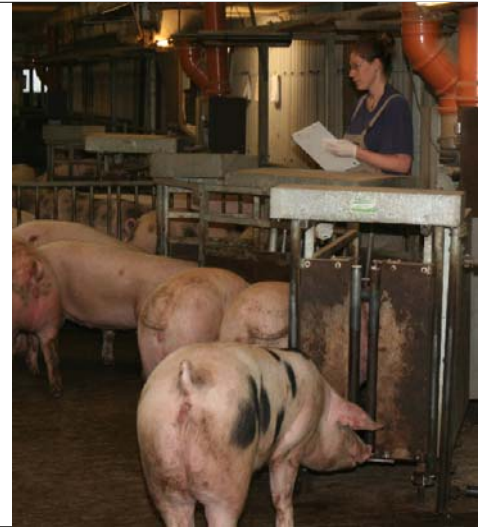
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What are relevant behaviour traits for group housing?

Can we integrate behaviour traits into pig breeding programmes?

Data and Analysis

- 613 Large White and 374 Pietrain gilts from nucleus farm of breeding company ,BHZP GmbH'
- Behaviour recording at regrouping:
 - *Adaption behaviour* to an unfamiliar electronic sow feeder (t = 3days), every not taken daily ration was counted
 - *Aggression*: Count of one-way-aggression and bilateral aggression (t = 30min)
- Skin lesions (SL) were evaluated before mixing and two days later for the front, middle and rear part of the body (Lesion-Index = SL before - SL two days later)
- SL scaled from 1 (no belmish) - 4 (many, deep wounds)
- Analysis of fixed effects with SAS-procedure MIXED, genetic parameters estimated with VCE 6



Conclusions

- Breeding for reduced aggression in group housed sows is possible as moderate heritabilities are estimated
- Large White gilts tend to be more aggressive than Pietrain gilts
- Before selection on these traits can be put into practice relationships with production traits need to be investigated

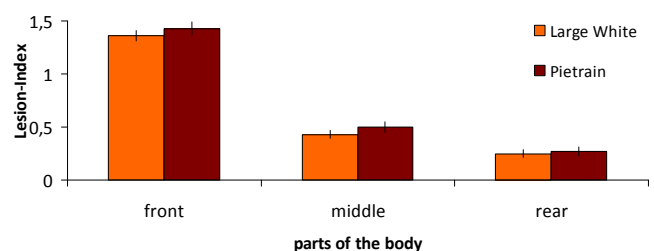
Results

Behaviour traits

Traits	Large White		Pietrain	
	Mean	SD	Mean	SD
One-way- aggression	1.93	2.19	1.05	1.46
Bilateral aggression	0.99	1.29	0.53	0.78
Adaption behaviour	1.01	1.06	1.24	1.05



Lesion-Index (± SE) for Large White and Pietrain gilts



Heritabilities

Large White gilts:

- One-way-aggression: $h^2 = 0.30$
- Bilateral aggression: $h^2 = 0.17$
- Adaption behaviour: $h^2 = 0.12$