
Management and farm characteristics associated with boar taint and aggressive behaviour on Dutch pig farms

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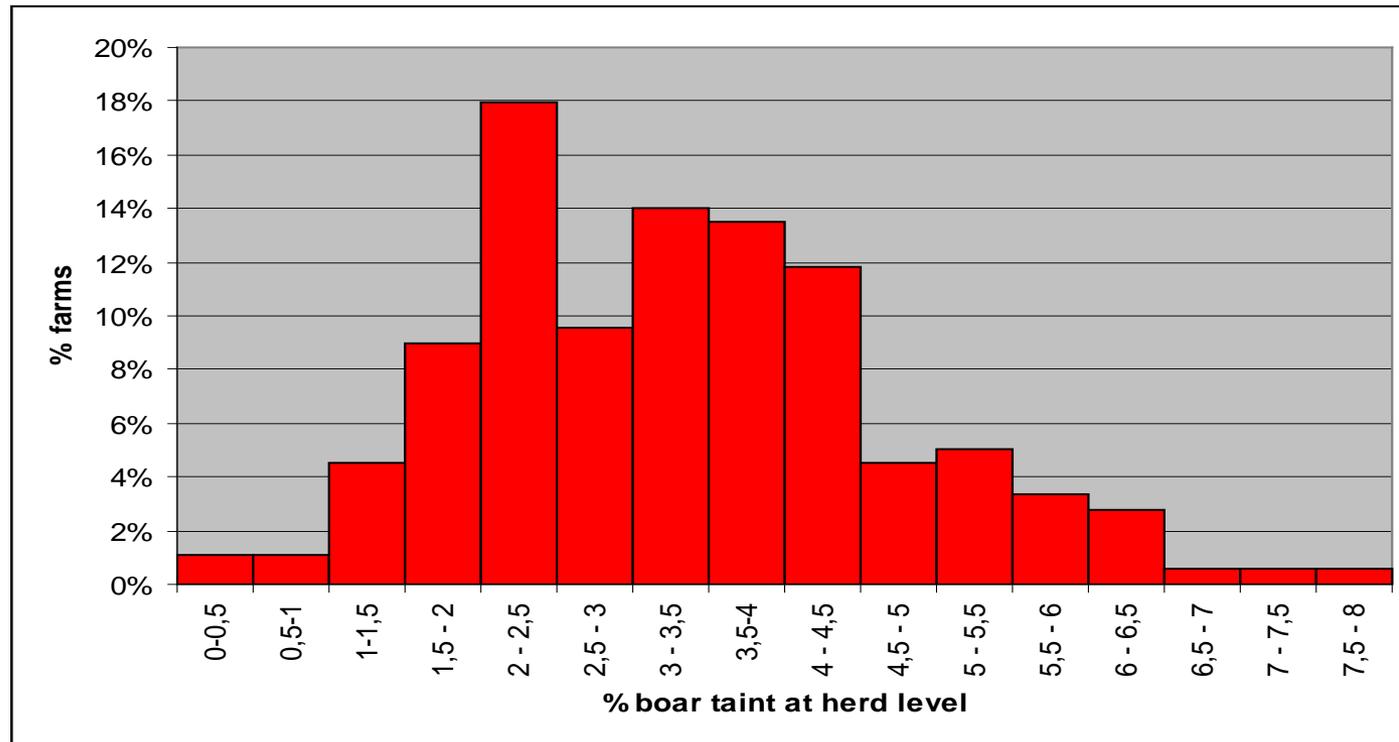


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Introduction (I)

- Since 2009 in-line measurement of deviant smell
- On average 3-4% of carcasses deviant smell
- Variation in % deviant smell between farms



Introduction (II)

- Aggressive behaviour boars important problem for producers
- Large variation in perceived aggressive behaviour of boars between producers

Goal

- Identify farm and management factors that are associated with the percentage deviant smell and aggressive behaviour of boars



Questionnaire

- Possible factors from literature and experts
- Questionnaire sent to professional boar farmers
 - ≥ 300 boars in ≥ 2 deliveries
 - 152 farmers
 - 101 respondents (66%)
 - December 2010/January 2011
- 11 farmers with ≥ 2 location numbers and 1 questionnaire removed -> 90 remained for analysis



Analysis

- Two step regression analysis of factors on
 - Average % deviant smell on farm level: measured in-line at slaughter
 - Extent of aggressive behaviour: seriousness and frequency as perceived by farmer
- Step 1: forward selection on subsets of related variables
 - Subsets: aggression, light regime, hygiene, feeding strategy, stocking/marketing strategy, genetics
- Step 2: multivariate regression with selected variables from step 1

Results: Boar taint

Variable	Standardized Coefficients	T-value	P-value
Constant	0.000	-26.817	0.000
Aggressive behaviour	0.169	1.800	0.076
Dry feed	0.160	1.692	0.095
Stocking weight piglets >26 kg	-0.175	-1.891	0.062
Percentage of Z line sows	0.216	2.293	0.024
Percentage of 'Talent' end boar	0.298	3.189	0.002
Percentage of Pietrain end boar	0.315	3.407	0.001

Results: Agressive behaviour

Variable	Standardized Coefficients	t-value	P-value
Constant	0.000	25.057	0.000
>8 hours light per day	0.157	1.526	0.131
Restrict feeding last period (ad libitum before)	0.152	1.483	0.142
Percentage of Z line sows	0.248	2.415	0.018

Conclusions

Boar taint associated with:

- Pietrain or 'Talent' end boar
- Z-line gilt
- Stocking weight piglets >26kg
- Aggressive behaviour
- Dry feed



Aggressive behaviour associated with:

- Z-line gilt
- (>eight hours of light per day)
- (Restrict feeding in last period and ad libitum before)