

An easy-to-use scoring system for monitoring tail biting lesions in pig herds

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Introduction

Tail biting in pigs is considered as a sign of reduced welfare in pig breeding (production disease), as tail biting in wild living *Suidea* is not reported. Tail biting is also economically important because of reduced performance and carcass quality (1). A better understanding of the problem is necessary to develop appropriate control strategies. In several studies, well defined tools for scoring tail biting lesions are used (2). Scoring lesions is often time-consuming and several often advanced scoring systems are used which are difficult to use in practice. The aim of this study was to investigate tail biting in a pig herd based on an easy-to-use monitoring system.

Materials and Methods

The herd was a commercial gilt producing pig herd and consisted of two pig stables each containing 17 compartments. In each compartment, there was a central hall with six pens on each side, with a total of 96 (first stable) or 108 (second stable) pigs per compartment. This pig herd had a recurrent problem of tail biting. A scoring system was used to monitor tail biting lesions in different successive groups of pigs. Tail lesions were monitored in six compartments (three from each stable). All pigs of these compartments were monitored weekly during four successive weeks, starting when pigs were 10 to 13 weeks (equally distributed between two stables). The scoring system was based on the scoring system described by Zonderland et al. (2), but with some modifications. The lesions were categorized into six groups based on the stage of lesions (table 1.).

Table 1. Categories used in the scoring system

Category	0	1	2	3	4	5
Stage of lesions	No lesions	Small lesions, no blood	Blood, no loss of tissue	Blood, + loss of tissue	Advanced lesions	Old and healed lesions

Zonderland et al. (2) used three parameters with a subdivision in different categories for each of them. We have combined this into one single parameter with six categories. The structure of a compartment was schematically presented underneath each category of lesions. The number of animals for each category was noted.

The scores were noted in a complementary excel sheet, and calculations of the prevalence of each category, total prevalence and the distribution of lesions per compartment were performed. The scoring was conducted on a weekly basis for a four week period.

Results

In total, 557 pigs were monitored four times. The prevalence of tail lesions (score ≥ 1 and score 1 separately) during the four-week period in the different compartments is presented in Table 2.

Table 2. Percentage of tail lesions at compartment level

Compartment ¹	Time (weeks)				Mean
	1	2	3	4	
A	38 ² (38) ³	28 (28)	16 (15)	16 (15)	24 (24)
B	60 (59)	56 (54)	31 (25)	32 (24)	45 (41)
C	31 (30)	46 (46)	27 (27)	21 (20)	31 (31)
D	46 (38)	51 (26)	51 (28)	30 (7)	44 (25)
E	35 (28)	25 (18)	30 (17)	24 (12)	28 (19)
F	31 (30)	30 (29)	30 (17)	17 (12)	27 (22)
Mean	40 (37)	39 (34)	31 (22)	23 (15)	33 (27)

¹ compartments A-C were in stable 1, compartments D-F in stable 2 ; ² total prevalence of lesions (score ≥ 1); ³ prevalence of score 1-lesions

The overall prevalence of tail biting lesions was 33%. The prevalence of lesions declined with increasing age of the pigs i.e. from 40% at first monitoring to 23% during the last monitoring. The lesions were milder at the beginning (37/40 = 93% score 1) than at the end (15/23 = 65% score 1) with increasing age (lower proportion of score 1 in affected pigs). There was a large variation between different compartments in the prevalence and evolution of lesions, and also between different pens within a compartment (data not shown).

Conclusions and Discussion

This pig herd had a high prevalence of tail biting (33%). The prevalence of lesions declined with increasing age, but more pigs with severe lesions remained at the end of the observation period. Lesions categorized as score 1 were only minor lesions, which could rapidly heal. As there was a large variation between compartments and pens within a compartment, it is important to include a sufficient number of pigs and different compartments and pens. The farm-based monitoring system proved to be very useful to assess in a objective way the prevalence and severity of tail biting lesions in pigs. The system could be very valuable to assess the effect of control measures against tail biting lesions.

References

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