

# Tail lesions on carcasses of Irish slaughter pigs in relation to producer association with advisory services

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## Main findings

The high prevalence of moderate tail lesions in a large proportion of batches of slaughter pigs suggests that chronic tail manipulation is a widespread problem. The large variation between batches indicates that there is good scope for improvement in the housing and management of pigs to reduce this behaviour on Irish farms. Given the economic and welfare implications of even moderate tail lesions it would benefit producers to receive information from the factory on such lesions recorded during meat inspection. This could help inform farm management plans and enable intervention before the behaviour escalates into tail biting.

## 1. Introduction

Advisory services work to improve farm performance through better housing, management and nutrition of pigs. Record keeping is a vital part of such services but it is unclear how this relates to pig welfare issues such as tail biting. In general only severe tail damage is recorded at meat inspection such that the focus is on severe tail biting. However, in the absence of an acute outbreak of tail biting pigs can perform high levels of chronic tail directed behaviour (Taylor et al., 2010). It is likely that this results in a high prevalence of mild to moderate tail lesions which are also associated with pathologies, reduced carcass weight and increased risk of carcass condemnation/trimming (Harley et al., 2014).

## 2. Objectives

- Estimate the prevalence and variation between batches in tail lesions with different degrees of severity
- Investigate the effect of record keeping in association with advisory services on the prevalence of tail lesions

## 3. Methodology

- Abattoir observations in June/July 2014 for 3 – 4 days (9 am until finish)
  - Abattoir A: 10,000 pigs/week; 4 pigs/min
  - Abattoir B: 10,500 pigs/week; 6 pigs/min
- Scoring every pig after scalding/dehairing but before evisceration
- Two observers rotating every 1.5 hour

### Data analysis

#### Measurements

PROC GLIMMIX(SAS V9.3, SAS Inst. Inc., Cary, NC )

- Sex
- Herd
- Tail lesions: none/mild (0,1), moderate (2), severe (3, 4,5)



Figure 1. Tail lesion scoring system (scores 0–5, left to right)

## 4. Results and discussion

- In total 13,133 pig carcasses were scored (Table 1)

	Factory A	Factory B
Pigs inspected (n)	5829	7304
Batches (n)	35	38
Farms (n)	27	35

Table 1. Description of study population

## Tail lesions

- Moderate tail lesions: 25.2% of the pigs, 100% of the batches
  - 26.8% of pigs per batch on average
  - 47.9% of batches higher than average
- Severe tail lesions: 3.1% of the pigs, 76.7% of the batches
  - 3.4% of pigs per batch on average
  - 28.8% of batches higher than average
- Males have higher odds of moderate (OR = 1.4, 95% CI 1.25 – 1.49) and severe tail lesions (OR = 3.0, 95% CI 2.39 – 3.82) than females

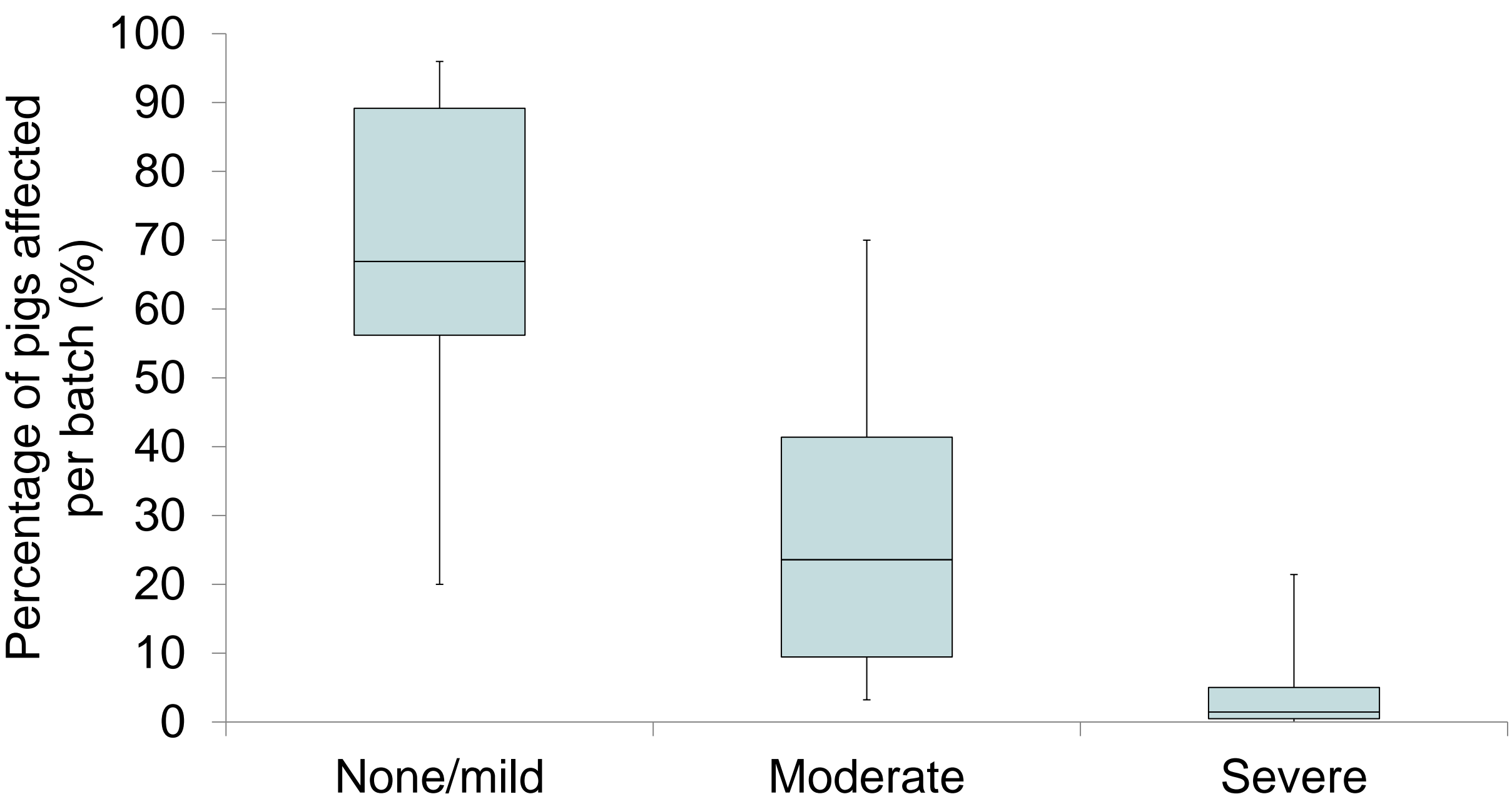



Figure 2. Prevalence of tail lesions and variation between batches

**Tail lesions are common and large variation between batches (especially in none/mild and moderate lesions) suggests that there is room for improvement**

## Tail lesions and record keeping

- 23 of the 61 farms sampled kept records
- Pigs from farms that kept records had lower odds of moderate tail lesions (OR = 0.5, 95% CI 0.33 – 0.85) but no differences were found for severe tail lesions



PIG RECORDING SYSTEM on e-PM  
Pig Detailed Integrated Herd Report

Farmer: User 12, Test  
Farm Code: 7700012  
Advisor: GERARD ADVISER  
Date: 02/04/2014

PERIOD FROM	30/12/2012	31/03/2013	30/06/2013	29/09/2013	30/12/2013	TARGETS
PERIOD TO	29/02/2013	29/05/2013	28/08/2013	28/11/2013	28/02/2014	
NUMBER OF WEEKS	13.0	13.0	13.0	13.0	52.0	

KEY PERFORMANCE INDICATORS

NO. PIGS PRODUCED / SOW / YEAR	24.4	27.2	24.9	22.1	24.6	23
PHU MEAT PER SOW PER YEAR KG	1553	2259	1973	1739	1973	1948
TOTAL FEED PER SOW PER YEAR TONNES	7.48	7.14	7.12	7.84	7.39	6.76

### Questions arising.....

- Does this reflect a true beneficial effect of record keeping on the management of pig health and welfare?
- Or are farms that keep records different in another respect (e.g. are they larger and/or with more labour units)?
- Is a high prevalence of tail lesions on a farm associated with poor performance indicators (e.g. days to sale, daily weight gain)?

**Future research to establish relationship between prevalence of tail lesions with different degrees of severity and farm performance indicators in farms that keep records**

