



TAIL BITING: PREVALENCE AMONG DOCKED AND UNDOCKED PIGS FROM WEANING TO SLAUGHTER

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INTRODUCTION

- More than 95% of European pigs are tail docked (EFSA 2007)
- EU directive bans routine tail docking
- Estimated 3.1% of Danish pigs gets a tail injury despite the tail docking procedure (D'Earth et al., 2014)
- The consequences of a cessation of tail docking in conventional Danish piggeries are not known


Study aim
Determine consequences of tail docking cessation on tail biting in a well-managed Danish conventional herd.




DEFINITION TAIL BITING & TAIL LESION


- Tail biting is a behaviour – damaging or non-damaging
- Definition damaging tail biting
 - Pig's chew on a pen mates tail resulting in a bloody wound on the tail (Munsterhjelm et al. 2013)
- Damaging tail biting
 - is painful to the pig
 - can develop to such an extent that the pig loses the majority of the tail
 - increases the risk of infections
 - increases the need for antibiotic treatments
 - may cause death or euthanasia (Kritas & Morrison 2004 & 2007)
- Tail lesion is a condition

Tail biting




Tail lesion






MATERIAL & METHODS

- Two groups
 - +/- tail docking
- Housing
 - Same pen from weaning to slaughter (stable group)
 - Docked and undocked pigs in different pens
 - 20-22 pigs per pen - 0.6 m² / pig, mixed gender
 - Daily provision of ~230 g straw on the floor until 70 kg + two vertical wooden sticks per pen
 - If tail biting occurred a Bite Rite was added and the amount of straw was doubled
 - If tail biting continued –tail bitten pigs were removed to hospital pens
- Animals
 - LYD – pigs, castrated males, individually earmarked



Bite Rite



PEN DESIGN

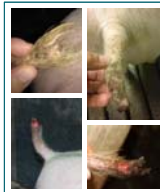




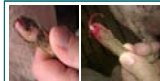
RECORDINGS


- Every second week all tails were inspected by a trained technician
- Recordings by stockperson
 - Date tail biting outbreak
 - Antibiotic treatments
 - Dead/euthanized pigs
 - Pigs removed from pen and cause
- Abattoir
 - Tail lesion comments/condemned

Part missing



Full length





PRELIMINARY RESULTS

| | Undocked | Docked |
|-------------------------|------------|--------|
| Pigs, n | 963 | 964 |
| Pens, n | 47 | 48 |
| Tail bitten, n | 214 | 0 |
| Infected tail injury, n | 24 | - |
| Dead pigs, n | 30 (3 TB) | 37 |
| Hospital pen, n | 38 (25 TB) | 12 |



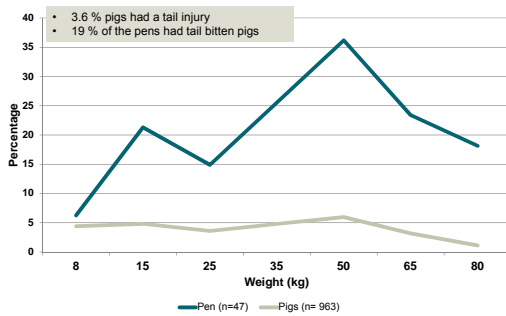
PRELIMINARY RESULTS

| | Undocked | | | Docked | | | P-value |
|--------------------------------|----------|-------------|-----------|--------|-------------|-----------|---------|
| | n | Mean | CL | n | Mean | CL | |
| Pigs moved to hospital pens, % | 47 | 0.81 | 0.43-1.19 | 48 | 0.31 | 0.12-0.50 | 0.02 |
| Dead pigs, % | 12** | 0.03 | 0.02-0.05 | 12 | 0.03 | 0.02-0.04 | N.S |
| Antibiotic treatments/pen | 47 | 34.1 | 29.2-38.9 | 48 | 26.5 | 22.3-30.8 | 0.02 |
| Remarks abattoir* | 17 | | | 3 | | | < 0.001 |

* Abattoir data is presented as the total number of pigs
 ** Number of batches

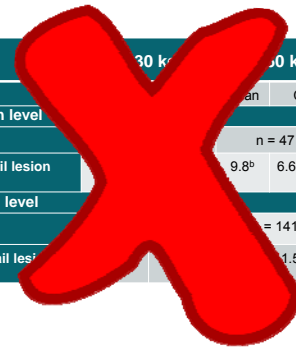


PRELIMINARY RESULTS TAIL BITING, 8-80 KG



PRELIMINARY RESULTS – UNDOCKED PIGS

| | 7-30 kg | 30-60 kg | 60-90 kg |
|---------------------------------|------------------|----------|------------------|
| Tail lesions – pen level | | | |
| Number of pens | n = 47 | n = 47 | n = 47 |
| % of pens with tail lesion | 9.8 ^b | 6.6-14.3 | 2.6 ^a |
| Tail lesions – pig level | | | |
| Number of pigs | n = 141 | n = 110 | n = 110 |
| % of pigs with tail lesion | 1.5-3.1 | 1.3 | 0.8-2.1 |



PRELIMINARY RESULTS – UNDOCKED PIGS

| | 7-30 kg | | 30-60 kg | | 60-90 kg | |
|---------------------------------|-------------------|----------|-------------------|-----------|-------------------|----------|
| | Mean | LM | Mean | UM | Mean | CL |
| Tail lesions – pen level | | | | | | |
| Number of pens | n = 47 | | n = 47 | | n = 47 | |
| % of pens with tail lesions | 12.7 ^a | 8.3-18.9 | 34.3 ^b | 25.6-44.3 | 11.0 ^b | 6.8-17.3 |
| Tail lesions – pig level | | | | | | |
| Number of pigs | n = 143 | | n = 141 | | n = 110 | |
| % of pigs with tail lesions | 4.0 ^a | 2.5-6.3 | 5.6 ^a | 3.4-9.0 | 0.9 ^b | 0.3-2.5 |

* a, b – P < 0.05



PRELIMINARY CONCLUSIONS

- Cessation of tail docking in a well managed herd with a high health status and low occurrence of tail biting among docked pigs:
 - Increased the risk of tail biting
 - despite low stocking density from 7-30 kg and straw
 - Increased the need for hospital pens
 - Did not increase number of dead pigs – if the tail biting could be stopped
 - Abattoir remarks underestimated the prevalence of tail bitten pigs



THANK YOU FOR YOUR ATTENTION!!!



Challenging task!...



Finishers with intact curly tails

