Environmental enrichment and nutritional strategies to reduce tail biting in pig farms

Keelin O’Driscoll and Jen-Yun Chou
Project context


‘before carrying out tail-docking other measures are to be taken to prevent tail-biting and other vices, taking into account environment and stocking densities. For that reason, inadequate environmental conditions or management systems are to be changed’

‘ensure that pigs have permanent access to a sufficient quantity of material to enable proper investigation and manipulation activities, such as straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such (‘enrichment material’), which does not compromise the health of those animals.’

• March 2016: EU commission recommendation (2016/336) on application of the 2008 Directive on tail docking
  • Staff working document developed and available to provide guidance
Current situation

- 99% of Irish pigs tail docked
  …..Similar figures in most European countries!

1. What are the concrete progress indicators for this action plan for the period 2017-2019?
   1. Action plans from all MS by end Jan 2018
      a. existing compliance with EC law
      b. enforcement strategy
      c. the rate of tail-docking at national level
      d. recorded evidence at farm level of tail and ear injuries
      e. on-farm risk assessment based on the parameters listed in Recommendation (EU) 2016/336(2)
      f. implementation of improvement measures on farm

2. What specific steps have been taken by individual Member States in this regard?
   1. 12 MS submitted by end Jan 2018
Work to date.....

1. Survey

2. Compressed straw

3. Use of wood
   1. Hard
   2. Hard

soft
soft or toy
Long tails!

- August – December 2016, 14 pigs/pen (48 pens)

<table>
<thead>
<tr>
<th></th>
<th>Control (%CF)</th>
<th>High fibre (%CF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weaner</td>
<td>3.23</td>
<td>6.38</td>
</tr>
<tr>
<td>Finisher</td>
<td>5.63</td>
<td>10.65</td>
</tr>
</tbody>
</table>
Outbreaks

- 20% of the pigs had fresh blood present on the tail

- 26 outbreaks (45%)

<table>
<thead>
<tr>
<th></th>
<th>Control (%CF)</th>
<th>High fibre (%CF)</th>
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</thead>
<tbody>
<tr>
<td>Weaner</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Finisher</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

- Hospitals

Weaner: 8 Toy, 12 Wood
Finisher: 1 Toy, 1 Wood, 3 Wood, 1 Toy
Outbreaks

Move into finisher house
Proof of concept study

- 96 pigs (12 pigs/pen), 8 pens
- Farrow to finish
# 8 Enrichment Categories x 4 items

<table>
<thead>
<tr>
<th>Category</th>
<th>Rootable</th>
<th>Durable</th>
<th>Edible</th>
<th>Presentation</th>
<th>Texture</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Easyfix</td>
<td></td>
<td></td>
<td></td>
<td>Move</td>
<td>Soft</td>
<td>Floor</td>
</tr>
<tr>
<td>2. Root toy – floor</td>
<td></td>
<td></td>
<td></td>
<td>Move</td>
<td>Soft</td>
<td>Floor</td>
</tr>
<tr>
<td>3. Wood – holder</td>
<td></td>
<td></td>
<td></td>
<td>Attach</td>
<td>Hard</td>
<td>Floor</td>
</tr>
<tr>
<td>4. Wood – hang</td>
<td></td>
<td></td>
<td></td>
<td>Suspend</td>
<td>Hard</td>
<td>Eye</td>
</tr>
<tr>
<td>5. Rack</td>
<td></td>
<td></td>
<td></td>
<td>Attach</td>
<td>Loose</td>
<td>Eye</td>
</tr>
<tr>
<td>6. Fabric</td>
<td></td>
<td></td>
<td></td>
<td>Suspend</td>
<td>Soft</td>
<td>Eye</td>
</tr>
<tr>
<td>7. Chewtoy – hang</td>
<td></td>
<td></td>
<td></td>
<td>Suspend</td>
<td>Soft</td>
<td>Eye</td>
</tr>
<tr>
<td>8. Bucket</td>
<td></td>
<td></td>
<td></td>
<td>Suspend</td>
<td>Loose</td>
<td>Eye</td>
</tr>
</tbody>
</table>

*Properties (Van De Weerd et al., 2003)*
Interaction with different categories by direct observation

P<0.001
Different loose materials

- Grass
- Paper
- Straw

Week

g/day/pig
No outbreaks!!
Next step…

- March 2018 – present
Unfortunately…..

- 7 weeks post weaning for first batch…
Where to next…

We need to be able to rear undocked pigs in Moorepark…

- Maybe the rack is ↑ important than we realised

Finnish experience:

- Reduce no pigs/pen (0.9 m$^2$ finishers since 2012)
  - Our pens = 10.02 m$^2$: 12 pigs = 0.84 m$^2$

- Reduce competition at feeder
  - Considered ↑ important factor for Finnish farmers (Valros et al., 2015)

- Breed?

  Open to suggestions!
Take home message!

- Control of tail biting outbreaks in undocked pigs is extremely difficult

- Step-by-step process of determining which methods work
  - Farm specific

- Looking like the ban on docking will enforced reasonably shortly – post 2019?

*Must be addressed before it becomes a non-compliance issue!*
Thanks!

- Teagasc advisory, technical and farm staff
- Constance Drique

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