ANIMAL WELFARE IN GROWING PIGS

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Pigs: origins and strategies

- Social species
- Exploratory behaviour
- Forestry habitat
Social behaviour

Remember:

- Appears mainly as an antipredatory strategy
- Avoid isolation in pigs
- Implies competence for resources
- Needs of communication among individuals
- Conflict resolution $\rightarrow$ hierarchies
Hierarchies
Competence for resources
Space allowance

Area to rest
Active area
Area to eat
Dirty area

Temperature and density can change this distribution
Observe animal behaviour and state
Exploratory behaviour
Lack of stimulation
Tail Biting
EXPLORATORY BEHAVIOUR REDIRECTED IN PIGS

Concret floor or slat does not allow the behaviour
REDIRECTED EXPLORATORY BEHAVIOUR
Tail biting

(Redirected exploratory behaviour)
Lack of a substrate to explore

Redirected behaviour (initial phase)

Inadequate ventilation
High density
Nutritional deficiencies

Severe tail biting (second phase)
Stimulation of the animal

Enrichment material

Chains?  Pneumatics?
Castration in pigs
Surgical castration without anaesthesia

- Incision in the scrotum
- Cut or tear the spermatic cord

(Prunier et al 2005)

- Behavioural parameters
- Physiological parameters
Behavioural parameters

- Physic resistance
- Vocalization (frequency, intensity, duration)
Physiological parameters

- Heart rate
- ACTH

(Prunier et al 2006)
Alternatives to surgical castration

1. Surgery castration with anaesthesia
2. Local destruction of the testicular tissue
3. Male entire production
4. Sperm selection
5. Immunization against GnRH
Surgical castration with anaesthesia

- General anaesthesia
- Local anaesthesia + Analgesia

**Advantages:**
- Very effective

**Disadvantages:**
- Price and time
- Lack of specific protocols of anaesthesia
Local anesthesia (lidocaine + adrenaline)

**ACTH (pg/ml)**

- **Castr**
- **Castr-anaesth**
- **Restraint**
- **Local anaesth.**

*Prunier et al.*
Local destruction of testicular tissues with chemical agents

Method
Injection within the testis of formaldehyde, lactic acid, acetic acid, silver salt or zinc salt

Advantages
• Cheap, easy to administrate

Disadvantages
• Few studies about pain and welfare
• Sometimes swelling of the testicle
## Entire male production

<table>
<thead>
<tr>
<th><strong>Advantages</strong></th>
<th><strong>Disadvantages</strong></th>
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<tbody>
<tr>
<td>+ Feeding efficiency</td>
<td>+ Agressive and sexual behaviour (mounts)</td>
</tr>
<tr>
<td>+ Lean content</td>
<td>+ Lesions in the carcass</td>
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<tr>
<td>+ Polyunsaturated fatty acids</td>
<td>+ DFD</td>
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<td>- Nitrogen excretion</td>
<td>+ Soft fat</td>
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<td>- Production costs</td>
<td>+ Sexual odour</td>
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</table>
How to reduce sexual odour?

<table>
<thead>
<tr>
<th>Androstenone</th>
<th>Escatol</th>
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</thead>
<tbody>
<tr>
<td>• Genetic selection</td>
<td>• Management</td>
</tr>
<tr>
<td>• Reduce slaughter weight</td>
<td>• Nutrition</td>
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Detection of carcasses with odour
Sperm selection

- Production of females

- 10 to 15 millions of cells /hour
- 5 hours by sample
- Lower sperm viability
Immunization against GnRH
European Declaration about surgical castration

1. From 1 January 2012 in all cases with anesthesia and prolonged analgesia
2. From 1 January 2018 not allowed

Are we ready?
Thank you!!!

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