Clean pens? Let the pigs do the work!

Hygiene in organic pig pens

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Current situation on Dutch organic pig farms

- Aiming primary for clean indoor and secondary for clean outdoor area
- Typical group size between 15 and 30 pigs
- Ad lib pelleted feed indoors
- Nipple drinker in limited slatted area indoors
- Tendency towards fully slatted outdoor run
- Front side solid partitions, slatted part in the back: fence
- Mostly 75% of the outdoor run covered by a roof
- Not much enrichment, roughage often in indoor area
Presence

![Graph showing presence of pigs on outdoor run with and without rooting area over time.](image)

- **total with rooting area**
- **total without rooting area**
- **area 2 = rooting area**
- **area 2 without rooting area**

<table>
<thead>
<tr>
<th>Area</th>
<th>Time (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total with rooting</td>
<td>0% to 30%</td>
</tr>
<tr>
<td>Total without rooting</td>
<td>0% to 30%</td>
</tr>
<tr>
<td>Area 2</td>
<td>0% to 30%</td>
</tr>
<tr>
<td>Area 2 without rooting</td>
<td>0% to 30%</td>
</tr>
</tbody>
</table>
Sequence of behaviours

Think like a pig!
Pen Fouling Score

Indoor
- Solid floor slope 2%
  - Feeder: 0.56

Creep
- 0.35

Outdoor
- Concrete slatted (raised)
  - Drinker: 0.82
  - 2.05

Concrete slatted
- 2.94

Solid floor slope 2%
- 0.75
- 1.87
- 2.86

175 cm
260
305
160
160 cm
435 cm
Effect of additional drinker outdoor

- Central alley
  - Creep
  - Solid floor slope 2%
  - Indoor
    - Feeder
  - Outdoor
    - Concrete slatted (raised)
    - Concrete slatted
    - Dunging
    - Drinker

Dimensions:
- 175 cm
- 260 cm
- 250 cm
- 305 cm
- 160 cm
- 160 cm (repeated)
- 160 cm (repeated)
- 435 cm
Effect of position indoor drinker
Effect of “one way traffic”

Central alley

Creep

Solid floor slope 2%

Indoor

feeder

Concrete slatted (raised)

Outdoor

Concrete slatted

drinker

dunging

250 cm

260 cm

175 cm

435 cm

160 cm
Multifactorial

- In Dutch organic regulations: > 5 m free view
- Outer partition should be fence, not solid
- Fence line contact to neighbours attracts excretion
- Indoors: place of feeders – best in front, but be flexible.
- Fresh air coming from the front
- Not one single solution in case of problems. Custom combination of measures should work
Sows: Less minerals in pasture

- From indoor to pasture:
  - Lying and feeding indoors (not mobile)
  - Concrete outdoor run
  - Pasture with hotspots with minerals
- Delay 30 min before opening the gate to the pasture
- Longer route to pasture including specific “dunging area”
Normal sequence of behaviours

- Understanding Pigs and ....

... when the pigs understand us, they can do the work!