

EURCAW-pigs

Regional meeting West

VIEW AND INPUT TO DISCUSSION ON ENRICHMENT MATERIALS

Need for a scoring system of materials

Value for the pigs: commission staff working document (Commission recommendation 206/336)

Materials are divided into three categories:

Optimal materials: edible/feed like, chewable, ingestible, manipulable:

- straw, roughage, root vegetables etc.

Suboptimal materials: less eatable but chewable/manipulable:

- robes, fresh branches, pellets, hessian cloth etc.

Materials of marginal interest:

- objects, plastic pipe, chains, compressed wooden beams

Need for weighing value for pigs against: biosecurity, safety (food, pigs), environment, cost, practicality, availability.

Suggestion that EURCAW make a weighted list on their web page

Indicators of value for pigs

Provided in "Commission staff working document"; EUWINet, FareWellDock :

Non- animal based indicators:

Sustained interest: how frequent is the material renewed ?

- If material is not renewed daily the value is reduced
- If no need to renew it means that the material is not being used = low value

Access: is the material easily accesible for all pigs ?

Sufficient quantity: are all pigs able to have enough material to use at the same time ?

- Are there leftover from day to day.

Clean: is the materail soiled with excreta?

- Soiled materials have no valued

Indicators of value for pigs

Animal-based indicators of insufficient material and/or quantity:

Pigs do not use material over time

Pigs bite other elements (bars, tail/ears) or root dunging

Pigs compete/fight for access => not sufficient access or material

Pigs with bitten tails, pigs with severe skinlesions

Examples of use during control:

EUWelNet, FareWellDock,

Observe pigs after 2-5 min rest period:

Observe active pigs and calculate:

$(\# \text{manipulating material}) / (\# \text{manipulating material} + \# \text{manipulating other})$

- Optimal: likely to see at least 50 % manipulating simultaneously ;
- Suboptimal: likely to see 20-50 % manipulating simultaneously;
- Marginal: less than 20 % manipulate simultaneous

Compliance make true benefits for welfare

There are also benefits for productivity and health

Ex: Increasing allocation of an optimal material like straw results in:

- Improved growth rate (Jensen et al., submitted)
- Reduced risk of stomach ulcers (Jensen et al., 2017; Herskin et al. 2016)
- Reduced tail biting behaviour (Pedersen et al., 2014)
- Increased time spent on manipulating material (Jensen et al., 2015)



Reduced risk of tail bitten pigs, higher productivity and better health



Use this information to motivate farmers

Important to communicate positive aspects on productivity and health of providing optimal materials rather than marginal and suboptimal – move focus to this issue

Suggestions for ways to inform farmer:

- Demonstrator farms via video
- Publish in farmers media
- List of travelling farmers,
- Educate Vets/advisors,
- Improve education in welfare and behaviour at agricultural schools – farmers need to understand the biology behind

Examples of straw with slatted floor

PART OF FLOOR COVERED BY CONCRETE



Foto: SEGES, 2017

SpotStrø system from BoPil provide finely grounded straw on solid plate – frequent and small amounts Erfaring 1705 SEGES, 2017

STRAW CONTAINER



Foto: Morten Thomsen,
Landbrugsavisen sept 2014

Picture from Danish farm: exchanged wooden beams to straw container => reported less mortality due to healthy stomach

Example on use of straw with slatted floor

WEANERS: 25G STRAW PER PIG 3 X WK + SAWDUST

FINISHERS : 150 G STRAW PER PIG AND DAY



Mechanical scrapers allow high straw provision

Vacuum systems: allow some (25-100 g per pig and day)

Depends on the management – larger pipes, frequent flushing, and water back-flushing improve functioning




Farmer need to optimize slurry management on own farm

How much straw is needed to provide "Permanent access" ?

Interpretation in DK of "permanent access":

- There must be left over next day
- Danish CA asked us how much straw does that require ?

Scoring system with score 0,1,2, and 3

<p>1 dl halm spredt på rengjort stigulv</p> <p>Kategori 0: mindre end 1 dl halm tilbage</p>	 <p>Score 0 (1 dl)</p>
<p>1 liter halm spredt på rengjort stigulv</p> <p>Kategori 1: mellem 1 dl og 1 liter halm tilbage</p>	 <p>Score 1 (1 l)</p>
<p>10 liter halm spredt på rengjort stigulv</p> <p>Kategori 2: 1-10 liter halm tilbage</p> <p>Kategori 3: Over 10 liter halm tilbage</p>	 <p>Score 2 (10 l)</p>

Score 3 <10 l

(Pedersen et al., 2014)

How much straw is needed to provide "Permanent access" ?

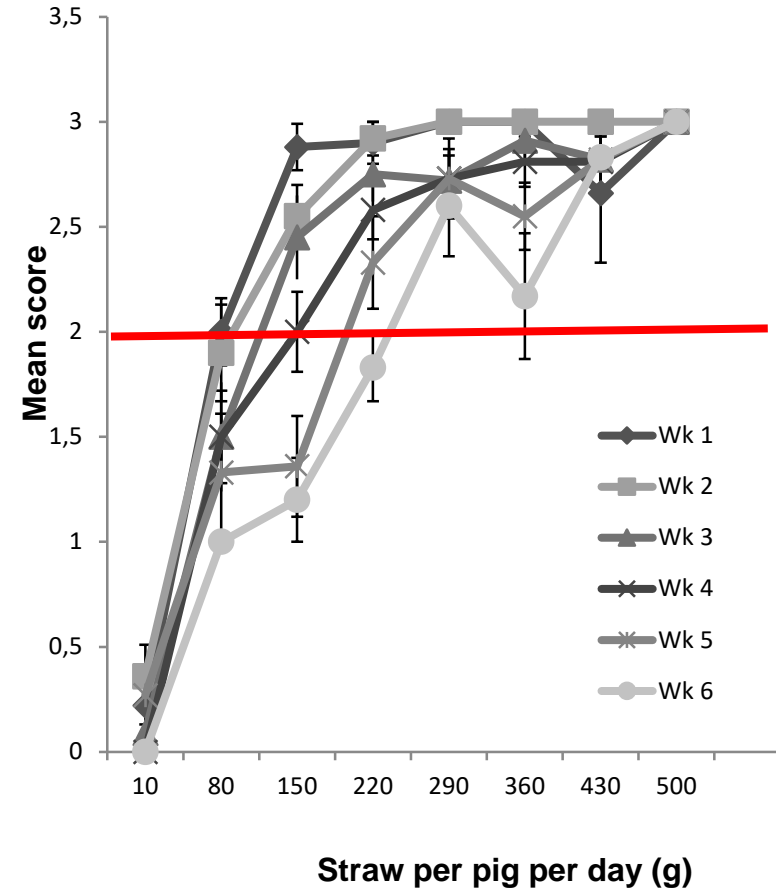
Score 2 as leftover allowed some manipulation of straw next morning:

B

Using score 2 as treshold:

30 kg pig (wk1): 50-100 g per pig and day

90 kg pig (wk 6): 200 g per pig and day



(Pedersen et al., 2014)

If given less than permanent access of straw

Combine with suboptimal material... eg. wooden beams:

DK compliance criteria: One for each of 10 pigs = two in typical pens with 18-20 finisher pigs

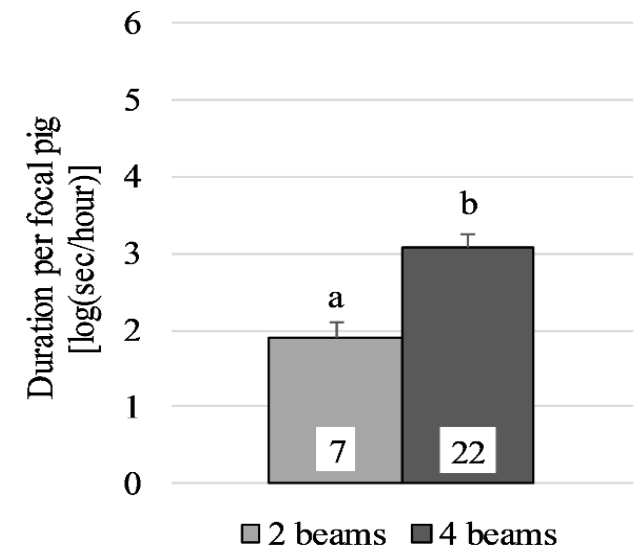
Do pigs benefit from 4 rather than two beam per pen?

Pigs spent more time with 4 beams than with 2

BUT very short time used on beams compared to time used on straw

Conclusion:

Rather supplement with 10 g straw per pig than provide more marginal materials



(Larsen et al., 2019)

Other materials used on slatted floor

- Intact root vegetable once/twice daily combined with suboptimal material
 - Highly preferred by pigs
 - Eaten fast and less blocking of slats
 - Few/none left over that can end in slurry

Jute sacks

Straw in a hanging basket with rubber mat underneath

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Biosecurity

African swine fever – use of straw and hay ?

- Infectious diseases can spread through feed, straw etc. – however no incidences reported?
- Recommendation from Finland – store material 3 month before use

Cleaning and disinfection of materials:

- If materials are changed frequently between batches/pens – clean and disinfect them when changing

Food safety risks if certain materials are eaten ?

- Possible environmental impacts of pieces of eg plastic, odors to enhance use of suboptimal and marginal materials

No reason to use marginal or suboptimal materials that can break and pose a risk – they have none/marginal value for the pigs anyway