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Faculty of Health and Medical Sciences

The Danish Animal Welfare Index Project

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Improving pig welfare - what are the ways forward?

How do we know if we are moving forward?



Aim of the project

Construct an index that measures changes in animal welfare over time

- Transparent
- Feasible



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Assessment versus Control

Animal welfare control:

- Minimum level
- All or none
- Mostly risk factors
- No aggregation
- Only "bad" welfare

Welfare assessment:

- Overall assessment
- Several steps
- Mostly "here and now"
- Aggregated measure
- Positive welfare




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Animals

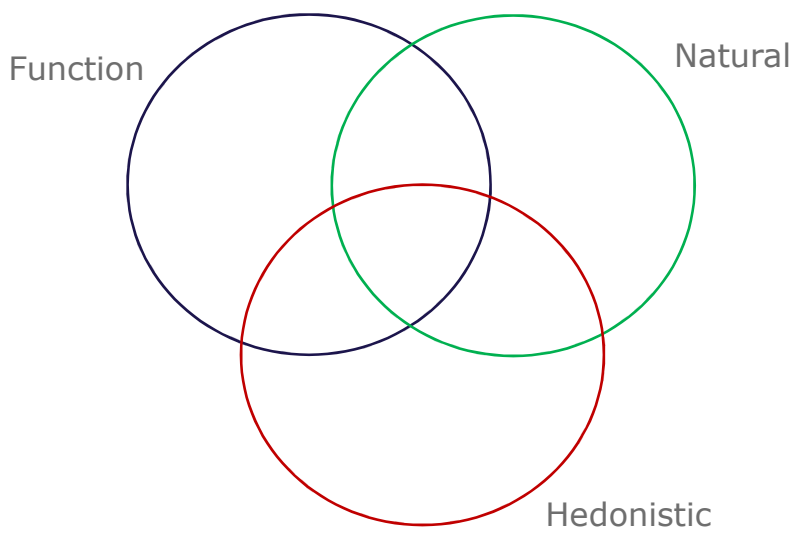


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Views on animal welfare




Function

Natural

Hedonistic

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Views on animal welfare

"Pigs should be dirty"

"Happy pigs are dirty"

"General condition"



Our decision

The hedonistic definition

Based on the experiences of the animal

Same definition as Welfare Quality®

Welfare Quality® is used as a reference value



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Photo: P Gau



Construction of the national welfare score

Existing data – based on previously available data,
e.g. slaughter data

On farm data – based on on-farm assessments

Final index – a combination of the two



Existing data

- Mainly slaughter data
- Selection procedure:
 - Welfare relevant
 - Comparable between slaughter plants
- Many variables show very large variation
- For some corrections may be used
- Still unclear to what extent slaughter data may be used



On farm data

Hedonistic definition => should use animal based measures

Animal based measures often take longer

Compromise



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Variables for on farm visits

	Gross list	Net list
Farrowing sows	67	
Piglets	44	
Sows & gilts	66	
Weaners & fatteners	62	

Sted og dato
Dias 12



Absence of prolonged hunger - sows and gilts, possible indicators

- Body condition score
- Stomach ulcers (in combination with fear)
- Energy content of feed
- Amount eaten per sow
- Vocalisation at feeding
- Weight/change in weight
- Fiber content of feed
- Roughage
- Feeding system (access)
- Sows without sensors

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Absence of prolonged hunger - sows and gilts, indicators used

- **Body condition score**
- Stomach ulcers (in combination with fear)
- Energy content of feed
- Amount eaten per sow
- Vocalisation at feeding
- Weight/change in weight
- Fiber content of feed
- **Roughage**
- **Feeding system (access)**
- Sows without sensors


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Variables for on farm visits

	Gross list	Net list
Farrowing sows	67	29
Piglets	44	21
Sows & gilts	66	29
Weaners & fatteners	62	23




Sted og dato
Dias 15

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The on-farm measures, comparison with WQ®

- No social behaviour
- No QBA
- No human-animal relationship
- New resource based measures
- Few additional animal based measures
- More focus on piglets



4/30/2015

Access to teats

Height of sidebar

Distance to wall



Example – rooting material


- 0: straw
- 1: soft wood with bark
- 2: soft wood without bark
- 3: iron/metal
- 4: no rooting material



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Welfare Quality®, structure

Principle	Welfare criteria	
Good feeding	1.	Absence of prolonged hunger
	2.	Absence of prolonged thirst
Good housing	3.	Comfort around resting
	4.	Thermal comfort
	5.	Ease of Movement
Good health	6.	Absence of injuries
	7.	Absence of disease
	8.	Absence of pain induced by management procedures
Appropriate behaviour	9.	Expression of social behaviours
	10.	Expression of other behaviours
	11.	Good human-animal relationship
	12.	Positive emotional state



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Construction of the national welfare score (similar to WQ)

Measures – e.g. body condition

Criteria – e.g. absence of prolonged hunger


Principles – e.g. good feeding

Overall score for the farm

National score

National index

With the aim of aggregating



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Aggregation

2 results:

- Aggregated measure, score/index
- Measure/criteria - cause for concern

Weighting based on expert opinions



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Validation

Compared to Welfare Quality®
Reference value, not the Truth

Comparison at the criteria and principle level



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The future

2015

Ongoing farm visits
Expert opinions

2016

Aggregation
Index model

2017

In use?

