

# A comparison of lesions found during meat inspection of finishing pigs raised under organic/free-range conditions and conventional indoor conditions

Lis Alban<sup>1</sup>, Jesper Valentin Petersen<sup>1</sup>, Marie Erika Busch<sup>2</sup>

<sup>1</sup>Danish Agriculture & Food Council, Copenhagen; <sup>2</sup>Danish Pig Research Centre, SEGES P/S, Copenhagen

## Objective

To compare the prevalence of lesions found during meat inspection of finishing pigs raised under

- Organic/free-range conditions
- Conventional indoor conditions

- As a measure of animal welfare

## Materials and Methods

Meat inspection data

- From one Danish abattoir
- All pigs slaughtered during a 1-year period (2012-13)
- Including: 201,160 organic/free-range pigs (171 herds)  
1,173,213 conventionally raised pigs (789 herds)
- Compared by Chi-square tests

## Results

### More frequent in organic/free-range pigs

	Organic/ free-range	Conven- tional	Odds ratio *
Healed rib fracture	0.73	0.19	3.8
Old fracture	0.20	0.09	2.2
Tail lesion – local	2.37	0.76	3.2
Tail lesion / tail infection	0.18	0.09	2.0
Osteomyelitis	0.34	0.16	2.1
Abscess in mid-part	0.47	0.30	1.6
Abscess in hind part	1.30	0.82	1.6
Chronic inf. arthritis	0.87	0.27	3.2
Chronic peritonitis	1.11	0.74	1.5
Chronic pericarditis	1.67	1.32	1.3
Eczema / insect bite	2.41	0.73	3.4
Skin corrosion	0.10	0.06	1.8
Milk spotted liver	2.60	0.90	3.0

### Similar levels (OR 0.8-1.2)

	Organic/ free-range	Conven- tional	Odds ratio *
Chronic pneumonia	0.35	0.30	1.2
Chronic pleuritis	19.10	23.90	0.8
Abscess in head or ear	1.81	1.90	0.9
Fresh fracture	0.13	0.17	0.8

### Less frequent in organic/free-range pigs

	Organic/ free-range	Conven- tional	Odds ratio *
Abscess in leg/toe	0.74	1.03	0.7
Scar/hock lesion	1.47	3.41	0.4
Hernia	0.93	1.36	0.7
Pyemia	0.01	0.02	0.5

\* All P-values < 0.004



### Fractures

- Squeezed by sow during suckling period?

### Infectious disease

- Lack of all-in all-out management
- Poorer hygiene
- Undertreatment?



### Fewer lesions on limbs

- More solid floor
- More bedding

### Tail lesions and sequels

- No tail docking
- Undertreatment?



### Skin lesions

- Outdoors/open buildings (insects, sunburn)
- Pigs lying in soiled areas

## Conclusions

- The production systems each have their challenges
- Important to use animal-based parameters when evaluating animal welfare in different production systems
- The strict rules for use of antimicrobials in organic/free-range production may have a negative impact on animal welfare

## Source

Alban, Petersen & Busch, 2015. Porcine Health Management, 4



CONTACT  
Marie Erika Busch  
Danish Pig Research Centre  
T +45 3339 4457  
M +45 2463 1681  
meb@seges.dk