

# Mixing sows and lameness

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Til minde  
om min far

STØTTET AF  
Svineafgiftsfonden

SEGES  
INNOVATION

# SEGES *InSight*

- 297 farms
- 303,504 sows

## Culling

Slaughtered

Dead

Euthanized

## Causes

Udder disease

Skinny / unthriving

Shoulder ulcer

Reproductive issues

Farrowing complications

Prolapse

Pastern ulcers / hoof abscess

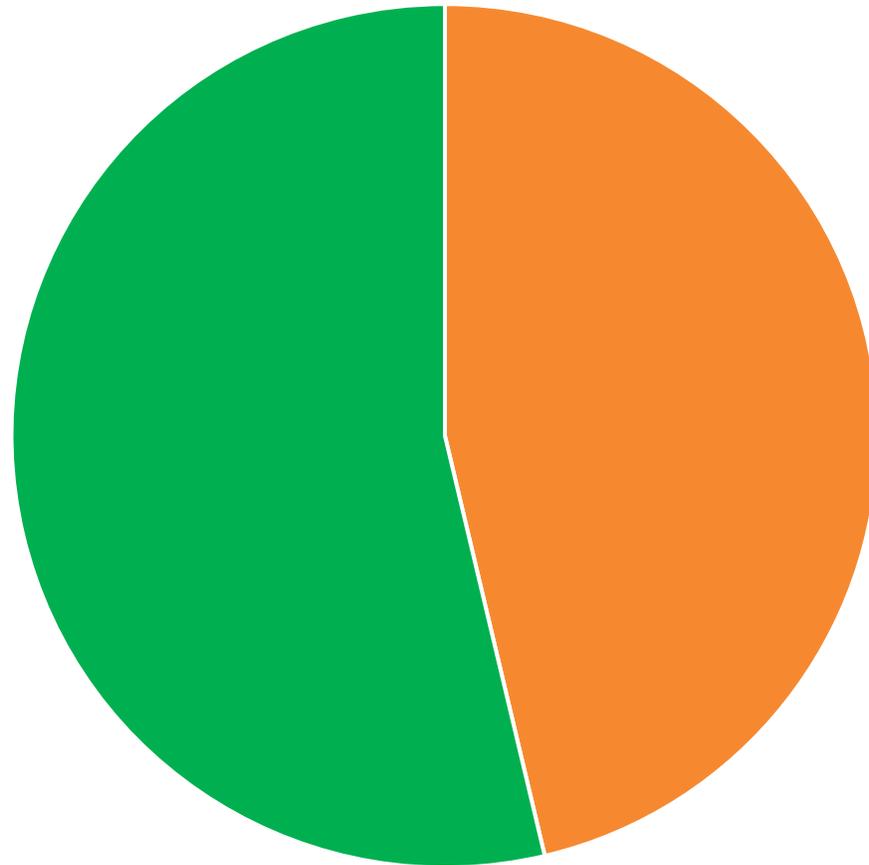
Leg problems

Batch size adjustments

Age

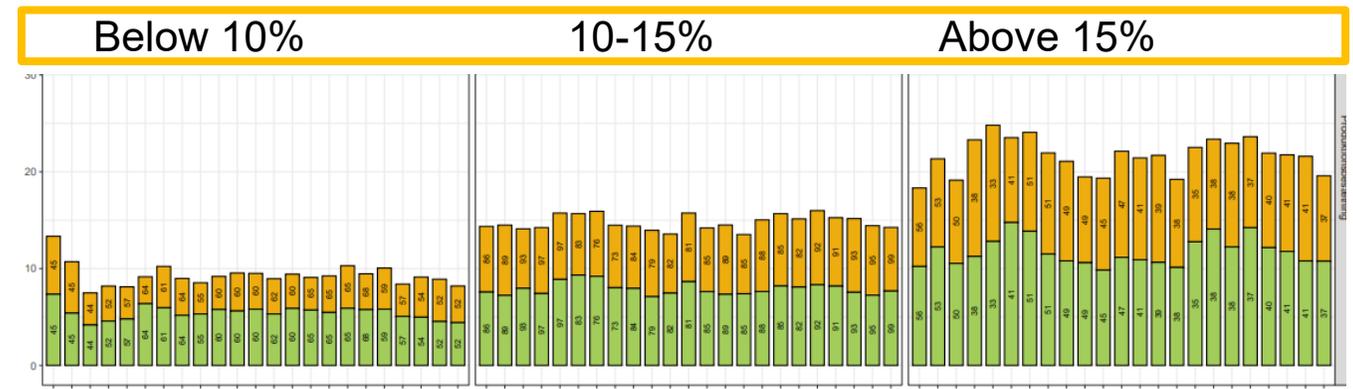
Other

# What we know about sow mortality

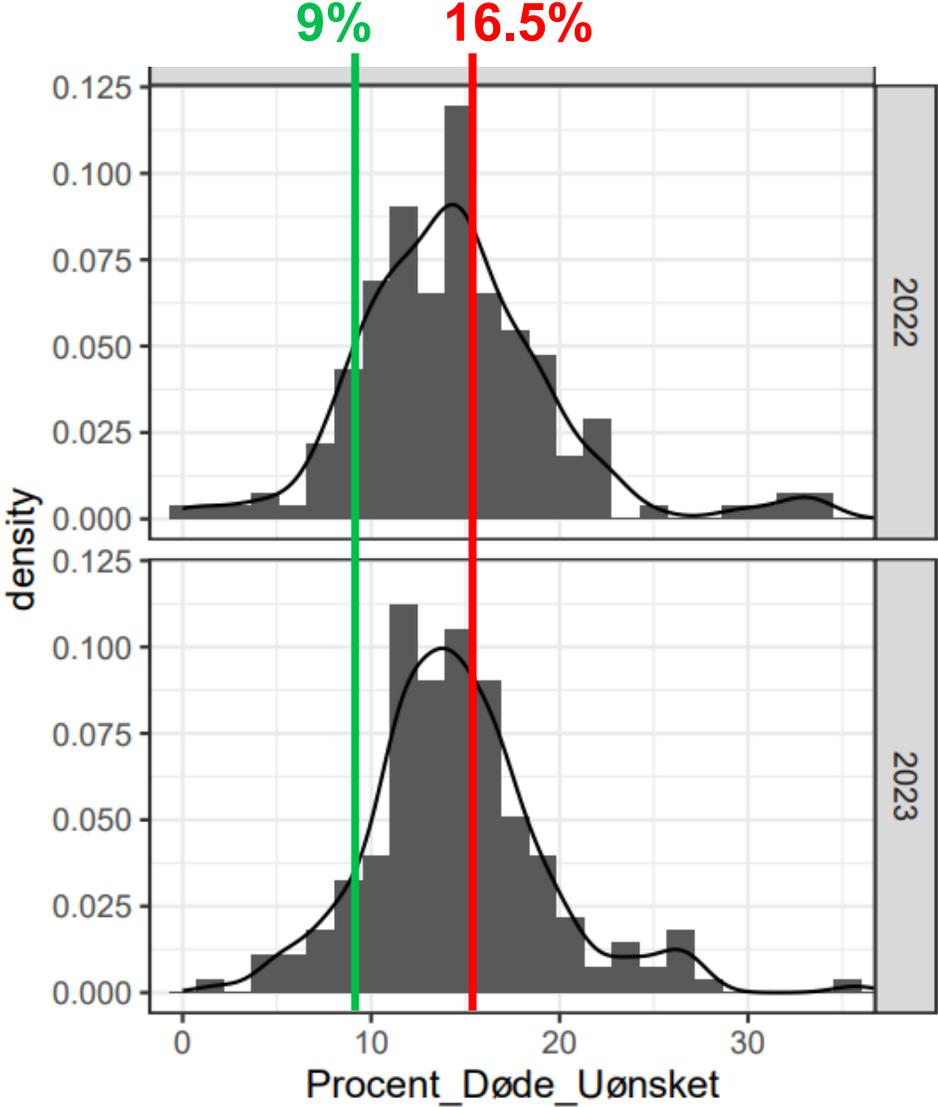


■ Euthanized ■ Dead

- 16.5% dead sows of sows/year in 2022 and 2023
- 7.7% euthanized (orange)
- 8.8% died (green)
- Same distribution regardless of level of sow mortality

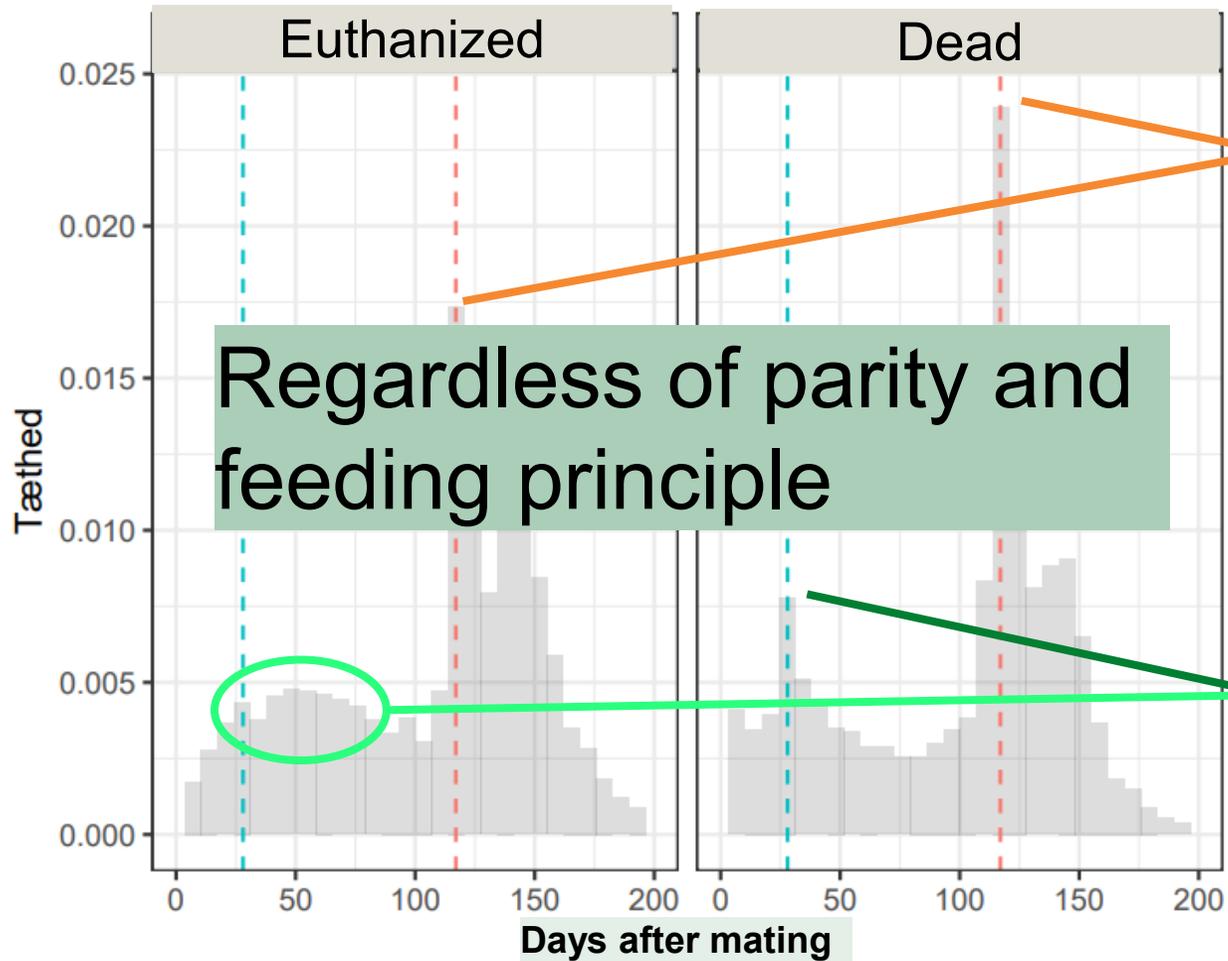


# Large variations in mortality between farms

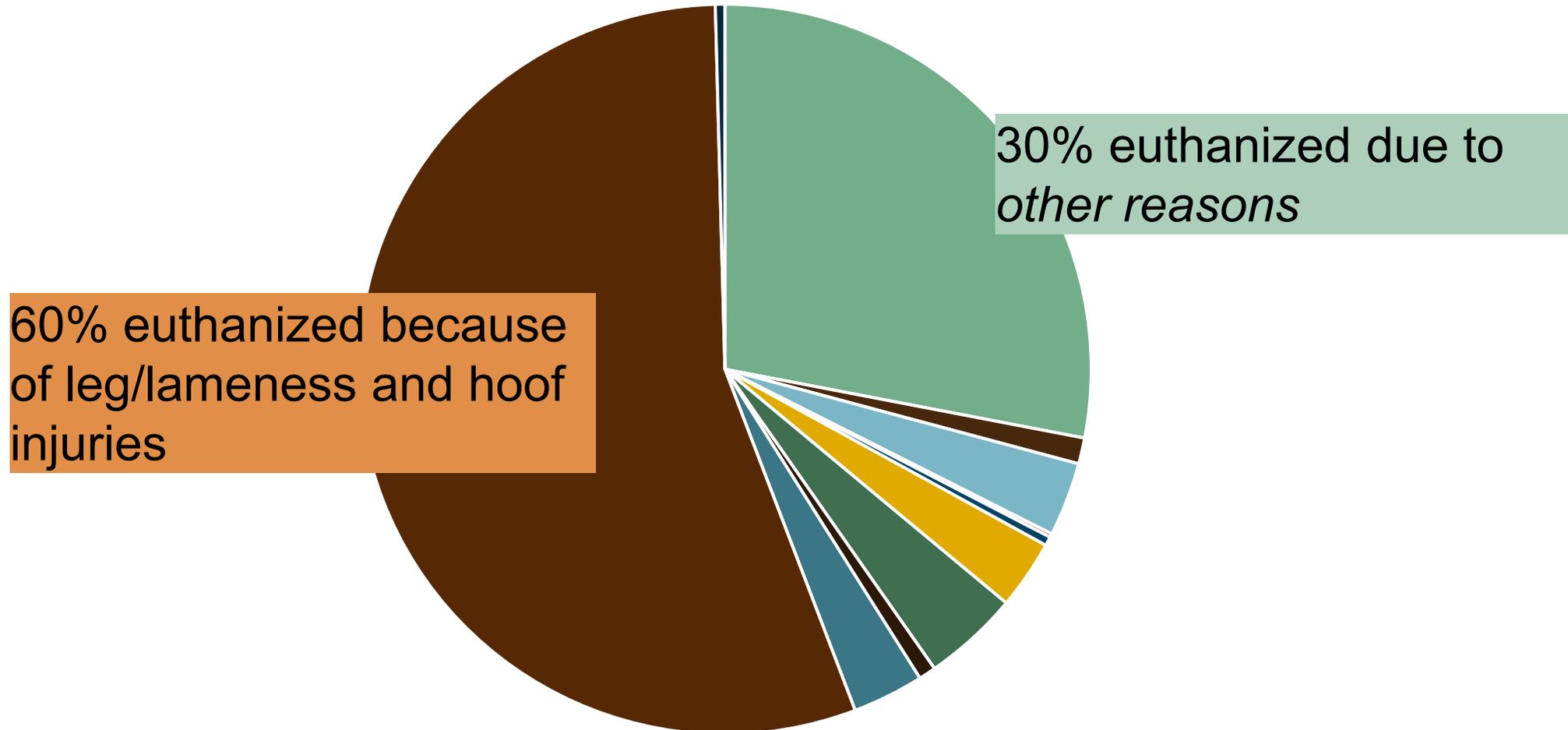


	Top 25%		Bottom 25%
Pigs weaned/sow/year	39.4	35.1	31.5
<b>Sow mortality</b>	<b>12.9</b>	<b>14.5</b>	<b>17.2</b>

# Two risk periods in a sow's cycle



# What do we know about the euthanized sows?



- Andet
- Moderegenskab
- Prolaps
- Ben/klove

- Reproduktion
- Yver
- Mavesår
- Stress/slagsmål

- Faringsproblem
- Skulderrsår
- Utrivelig

# Mixing sows after weaning – experiment



- 2 x 2 experiment
  - 3 m<sup>2</sup>/so or 5 m<sup>2</sup>/so
  - Use of stalls for 3 days during heat or not
- Lameness was the primary parameter
- Sows were randomized after:
  - Parity
  - Days from farrowing to weaning
  - Lameness score

# Indretning i afprøvningsbesætning

5 m<sup>2</sup>/sow

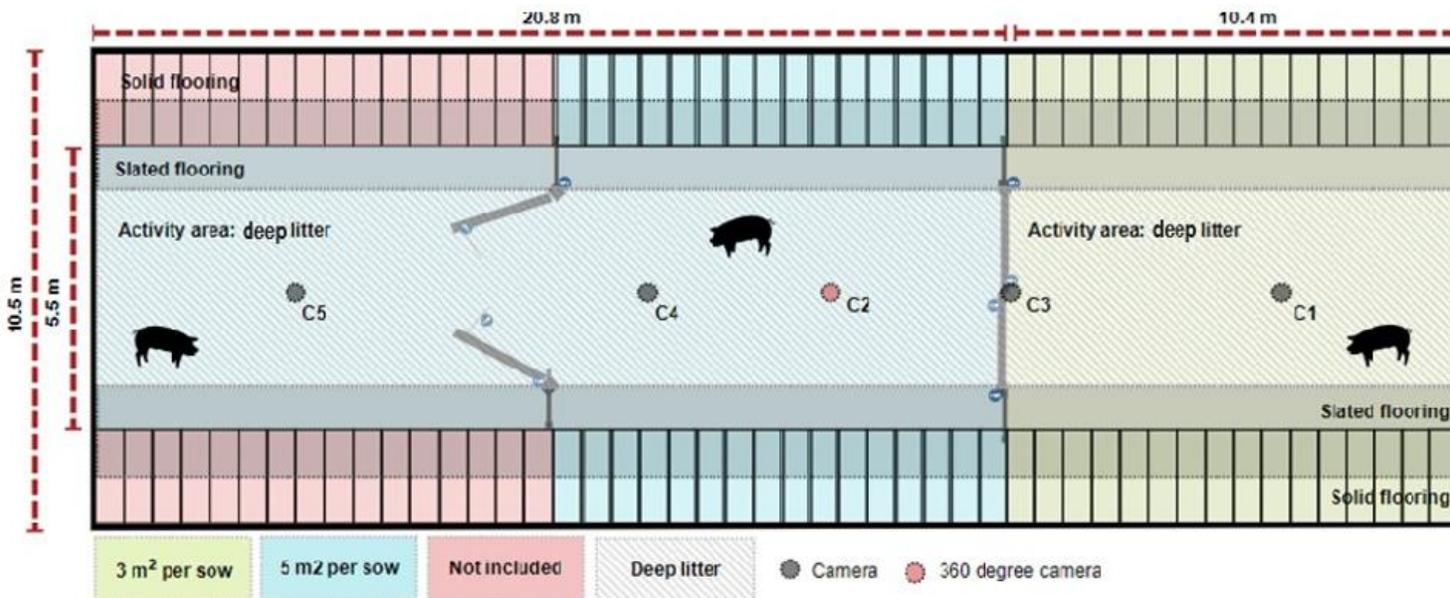
3 m<sup>2</sup>/sow

- Stall

+ Stall

- Stall

+ Stall



# Results

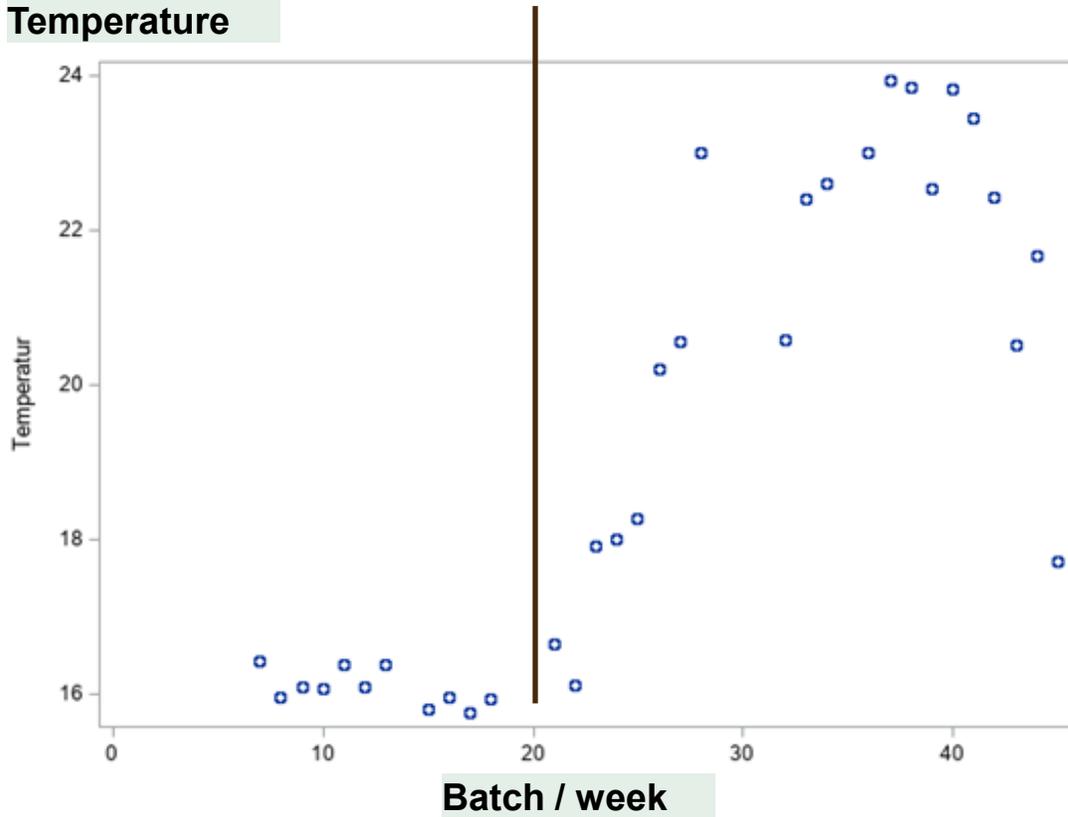
	3 m <sup>2</sup> /sow		5 m <sup>2</sup> /sow	
	- stall	+ stall	- stall	+ stall
Number of sows to mixing pen	626	601	624	597
Av. Litter number	2,8	2,8	2,8	2,8
Av. Days from farrowing to weaning	29	29	29	29
Number of sows to gestation	521	510	526	505

# Analyze

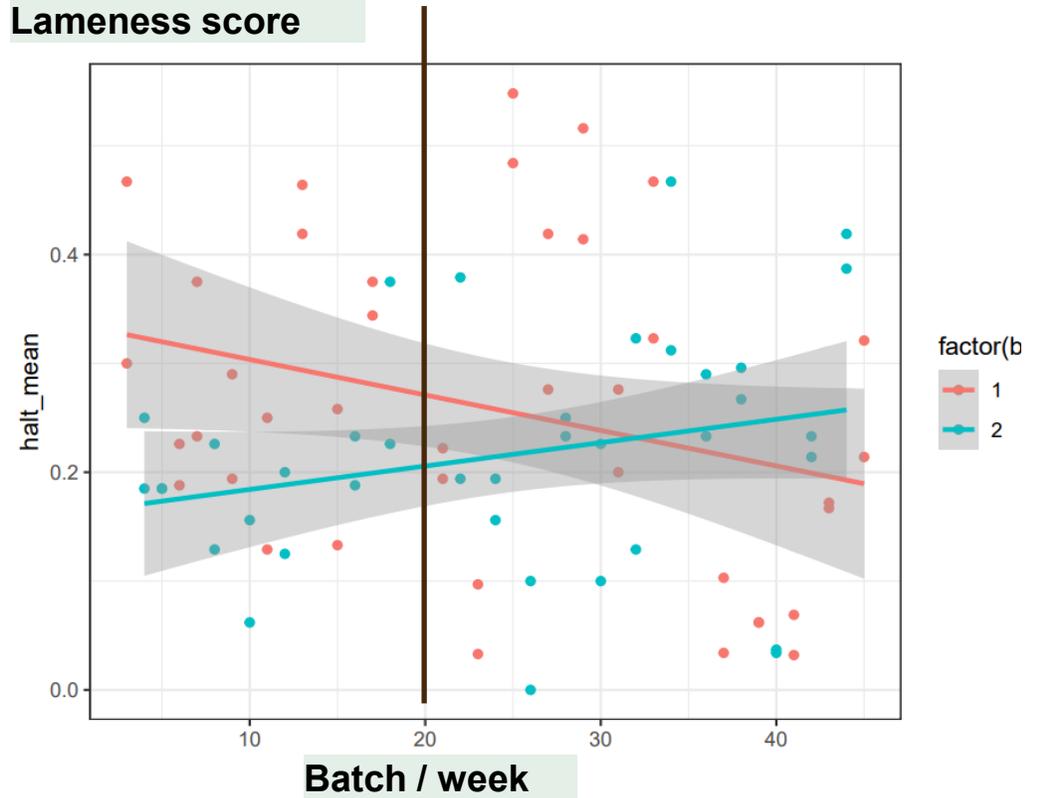
	3 m <sup>2</sup> /sow	5 m <sup>2</sup> /sow	SE	P-value (stall)
- Stall	15,1	11,5		
+ Stall	10,7	8,9	2,9	0,14
P-value (area/sow)		0,26		

# BUT...

Temperature



Lameness score



Batch 1 to 20  
P-value (stall) = 0,04

# Typical claw lesions among sow before farrowing (young/older), 21 herds with low/high mortality



2. Litter



4. Litter

Same type of hoof changes regardless of mortality rates, but significant more sows with severe claw lesions in herds with high mortality

30 %

18 pct.

67 %

63 %



53 %

24 %

53 %

59 %

% sow with the worst score

Erfaring nr. 2404

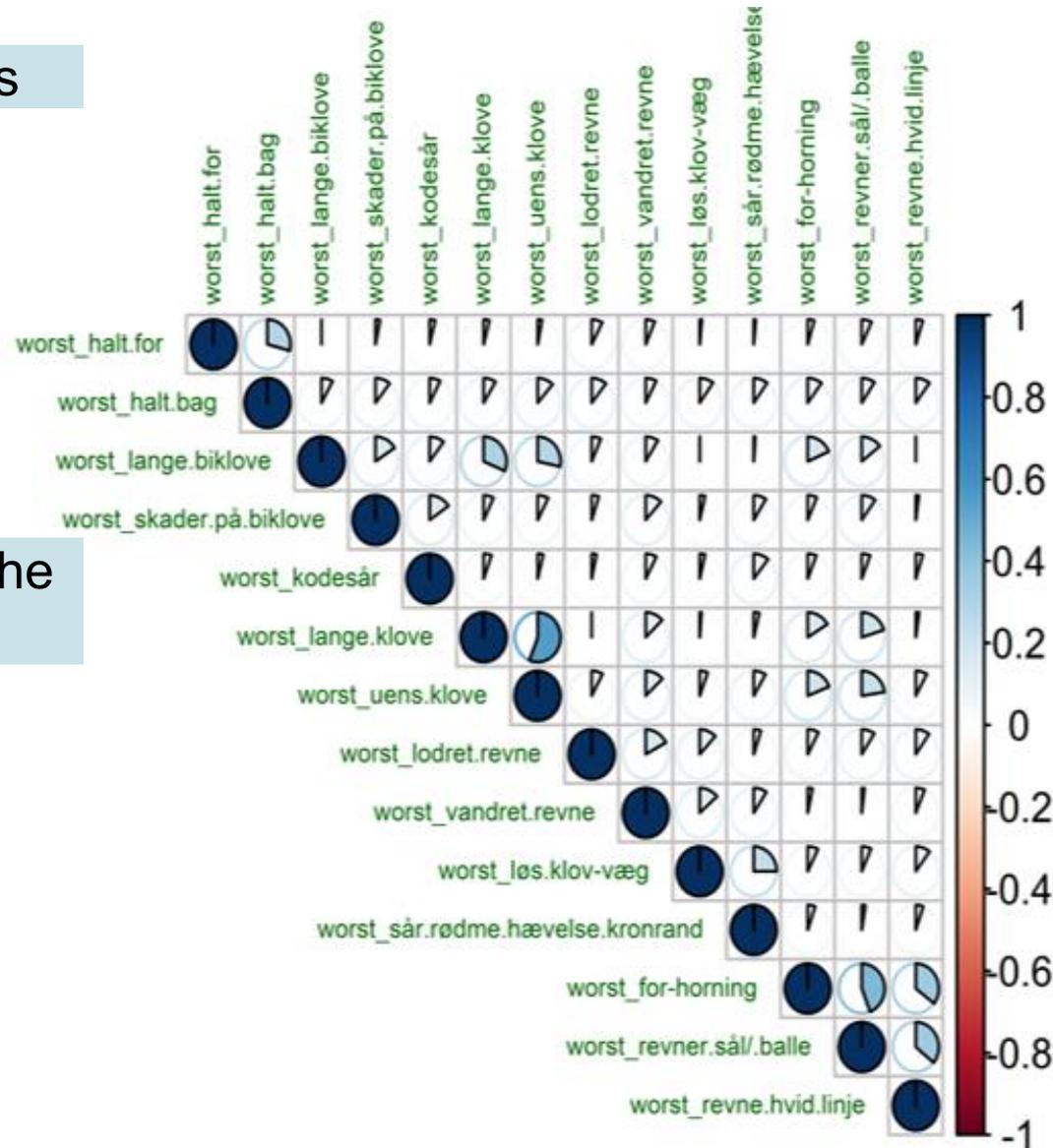
# Assessment of lameness and claws of 935 sows from 21 herds



Lameness



Claw on the hind leg



Erfaring nr. 2404  
Notat 2302 (litteratur)

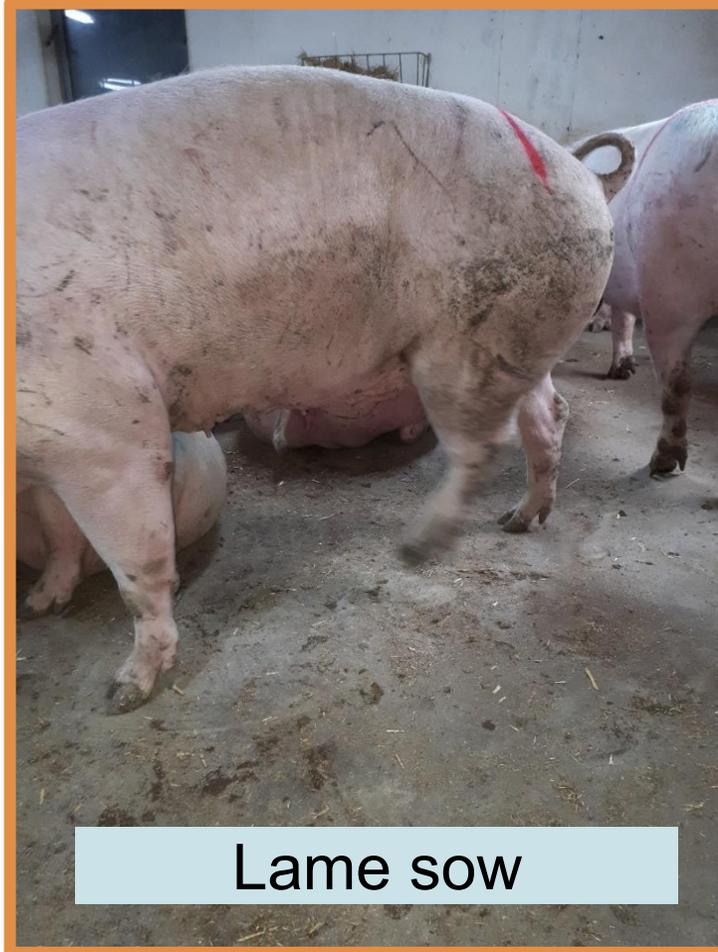
# Correlation between different claw lesions



Erfaring nr. 2404  
Notat 2302 (litteratur)



# Significant correlation between claw lesions, wounds and lameness



Erfaring nr. 2404



# Claw lesions and obduction of claw/leg from euthanized and dead sows



The aim was to:  
Increase our knowledge of claw lesions among euthanized and dead sows, and whether there was a correlation between specific claw lesions and internal findings



# Claw lesions and obduction of claw/leg from euthanized and dead sows

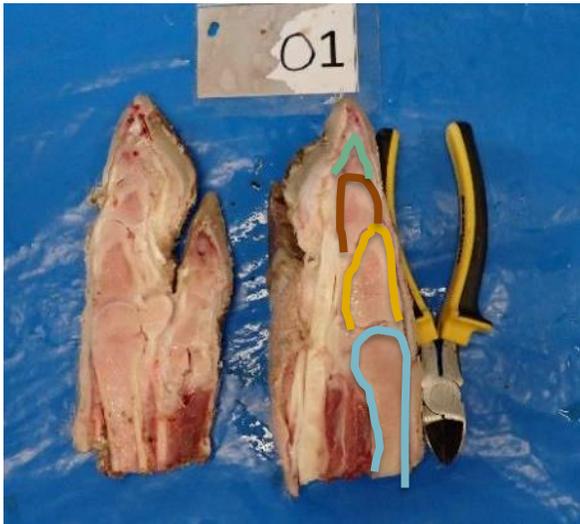


- 513 claw/legs from 258 euthanized sows and 255 dead sows
- 306 herds



- Location on the claw/leg (bone, joint)
  - Abscesses
  - Inflammation in the tissue
  - Inflammation of the bone marrow and joints

# Claw lesions and obduction of claw/leg from euthanized and dead sows



- More severe findings in claw/legs from euthanized sows compare to dead sows
- 23 % of the sows had both severe findings on claw/leg and internal

## Significant correlation between claw/leg in and internal findings

- Wounds on/close to declaw
- Loose wall
- Wound/swelling of the coronary border

Correlation to lameness

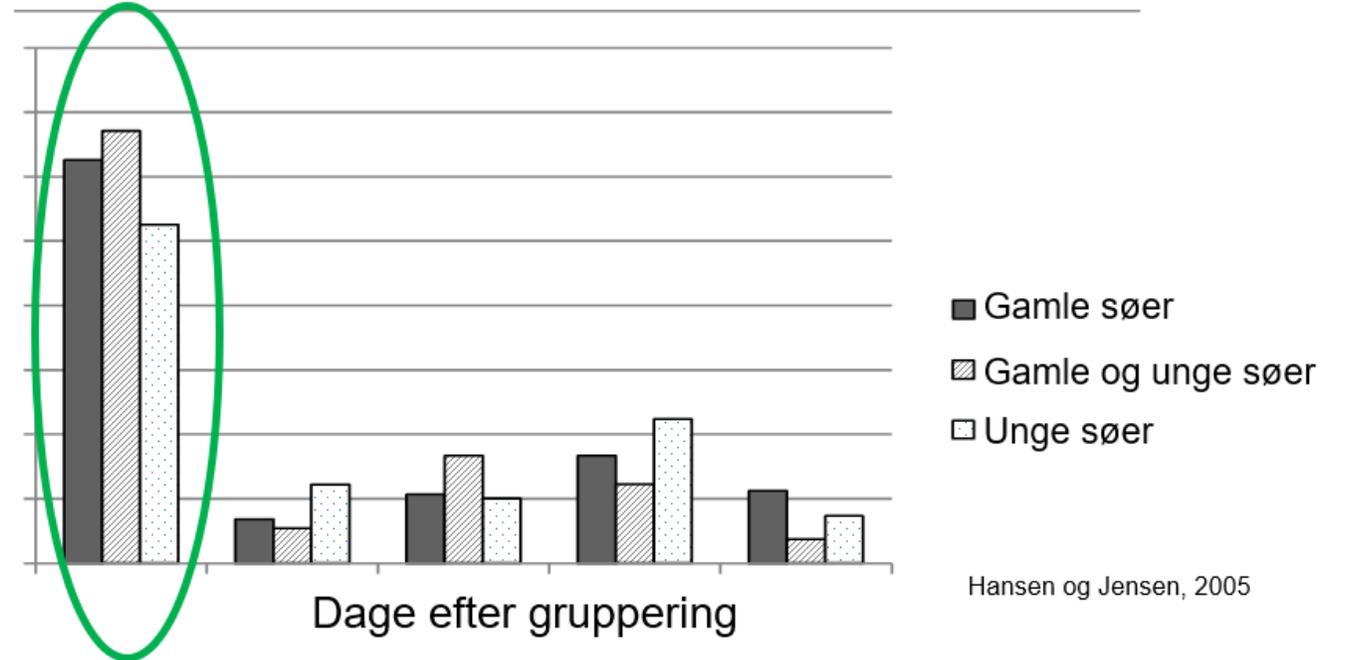
## No significant correlation

- Crack in wall and white line
- Uneven claws, long claws, long declaw
- Overgrown heel

# Lameness – when and where?



Rangkampe



- 20-30-40 % of not lame sows was found lame after mixing
- Young sows was overrepresented
- Even a mild lameness will develop into a severe lameness after mixing

# Find sows with claw/leg problems early and start treatment



Sows that are unwilling to stand up or have a tripping gait should be examined further

Even minor injuries can be serious and thus difficult to heal



# Hospital pens with drained floor and straw bedding



- Rubber mat are an option but are not always soft and are very difficult to keep clean
- Slope on the mat



## Use of hospital pens should be easy for the staff



- Short distance to the hospital pen
- A part of the pen for gestation sows
- 3-5 pct. (free access stalls, ESF)
- 10 pct. (floor feeding)

# Preventing claw lesions og lameness



## Pastern ulcers

- Quality of the floor in the farrowing pen
- Treatment before weaning

## Loose wall and wound of the coronary border

- Treatment
- Hospital pen
- Euthanizing



## Long claws, long declaws and ueven claws

- Selection of gilts
- Trimming of claws
- Slaughter after weaning



## "Stretching" and trauma

- Stable groups
- Mixing strategy
- Non slippery floors



