

More sows must survive

Veterinarian Anja Kibsgaard, Ø-Vet

Senior Scientist Lisbeth Ulrich Hansen, SEGES Innovation



SEGES *InSight*

STØTTET AF
Svineafgiftsfonden

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Who among you in here would say no to

- Low sow mortality rates?
- High levels of animal welfare?
- High levels of productivity?



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Industry declaration, 2016

”We fully expect sow mortality rates of 9% of sows/year by 2018 to be a realistic goal”



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SEGES *InSight*

- 297 farms
- 303,504 sows

Culling

Slaughtered

Sudden dead

Euthanized

Causes

Udder disease

Skinny / unthriving

Shoulder ulcer

Reproductive issues

Farrowing complications

Prolapse

Pastern ulcers / hoof abscess

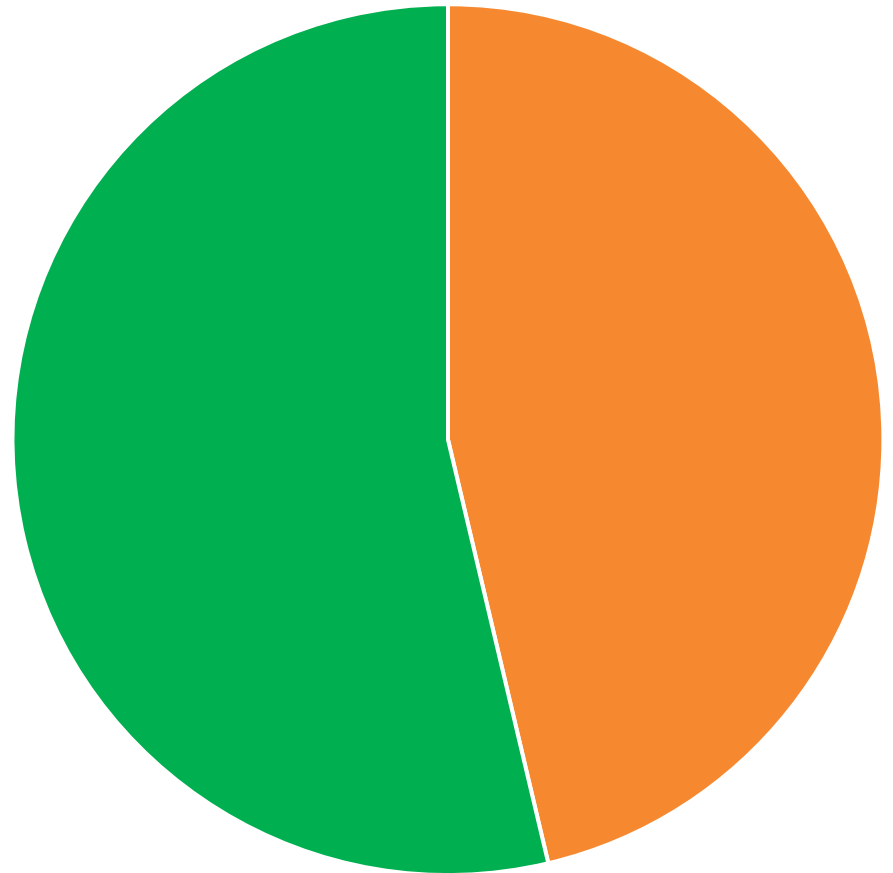
Leg problems

Batch size adjustments

Age

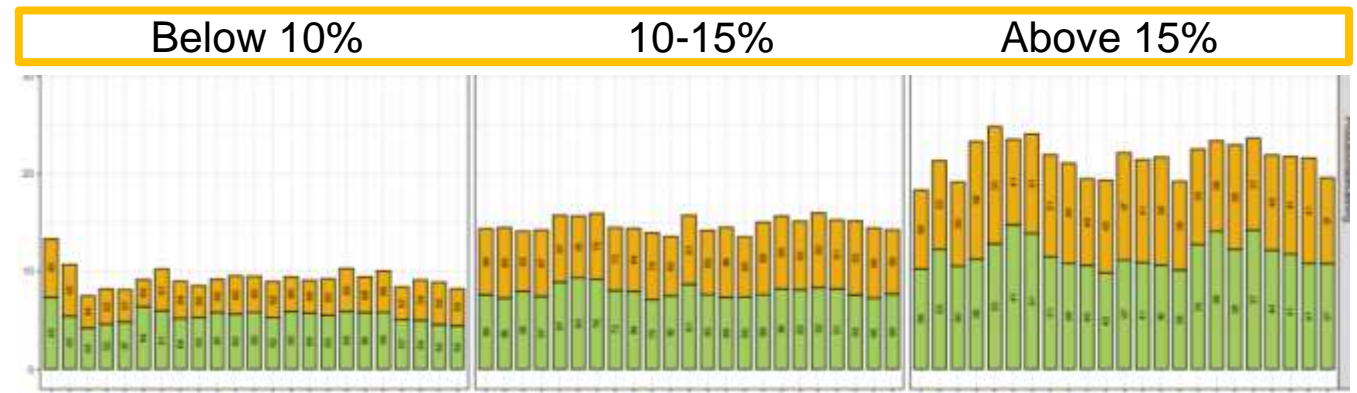
Other

What we know about sow mortality

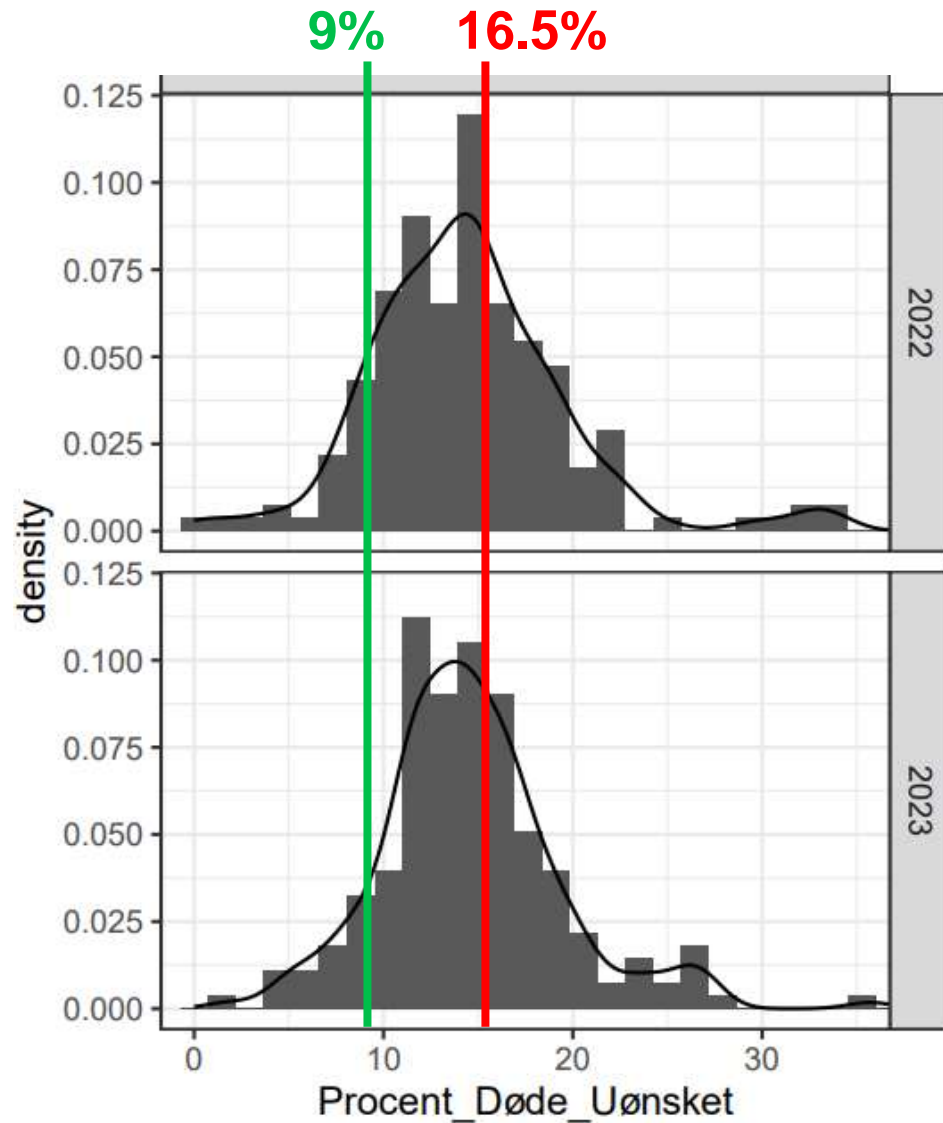


■ Euthanized ■ Sudden dead

- 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

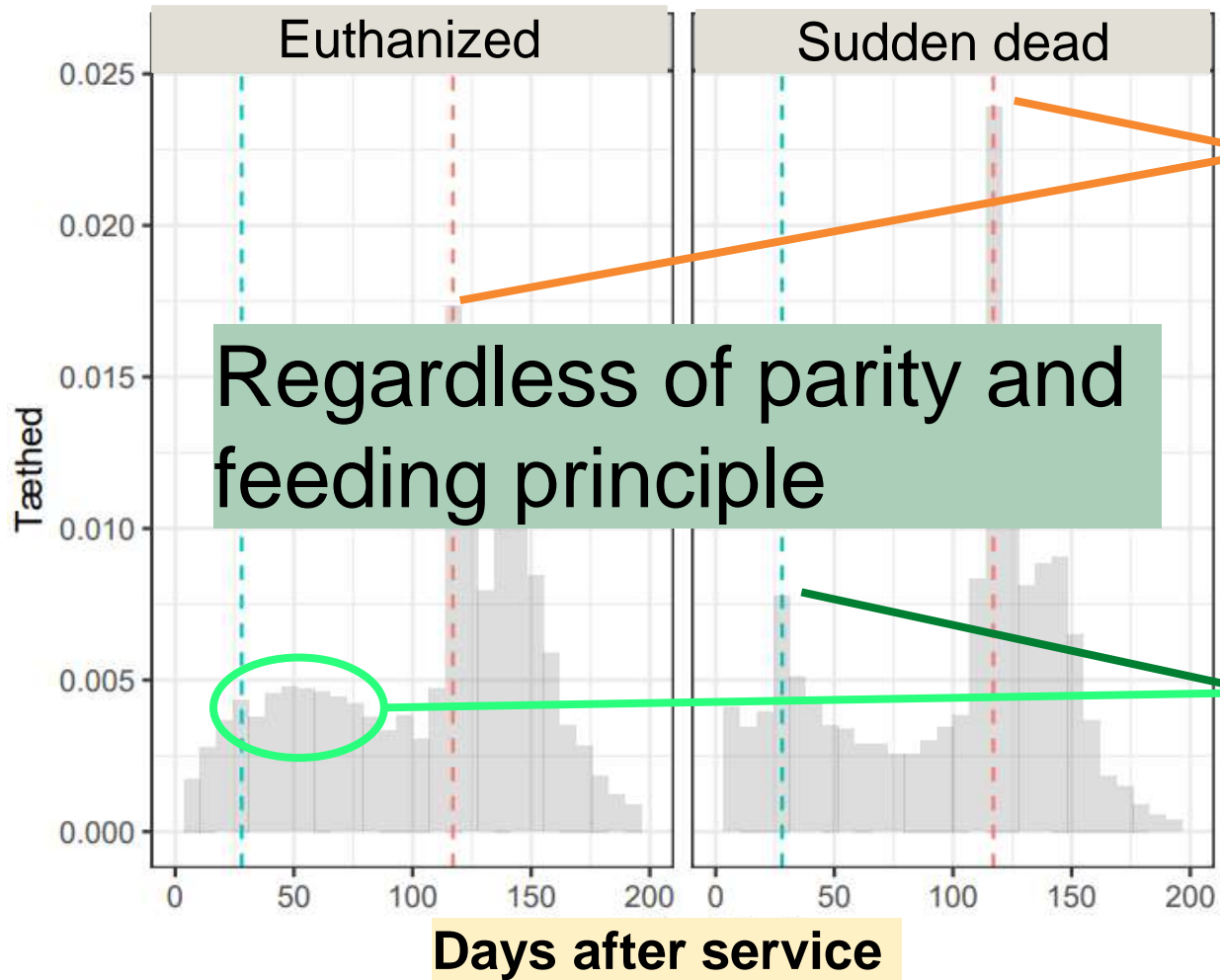


Large variations in mortality between farms



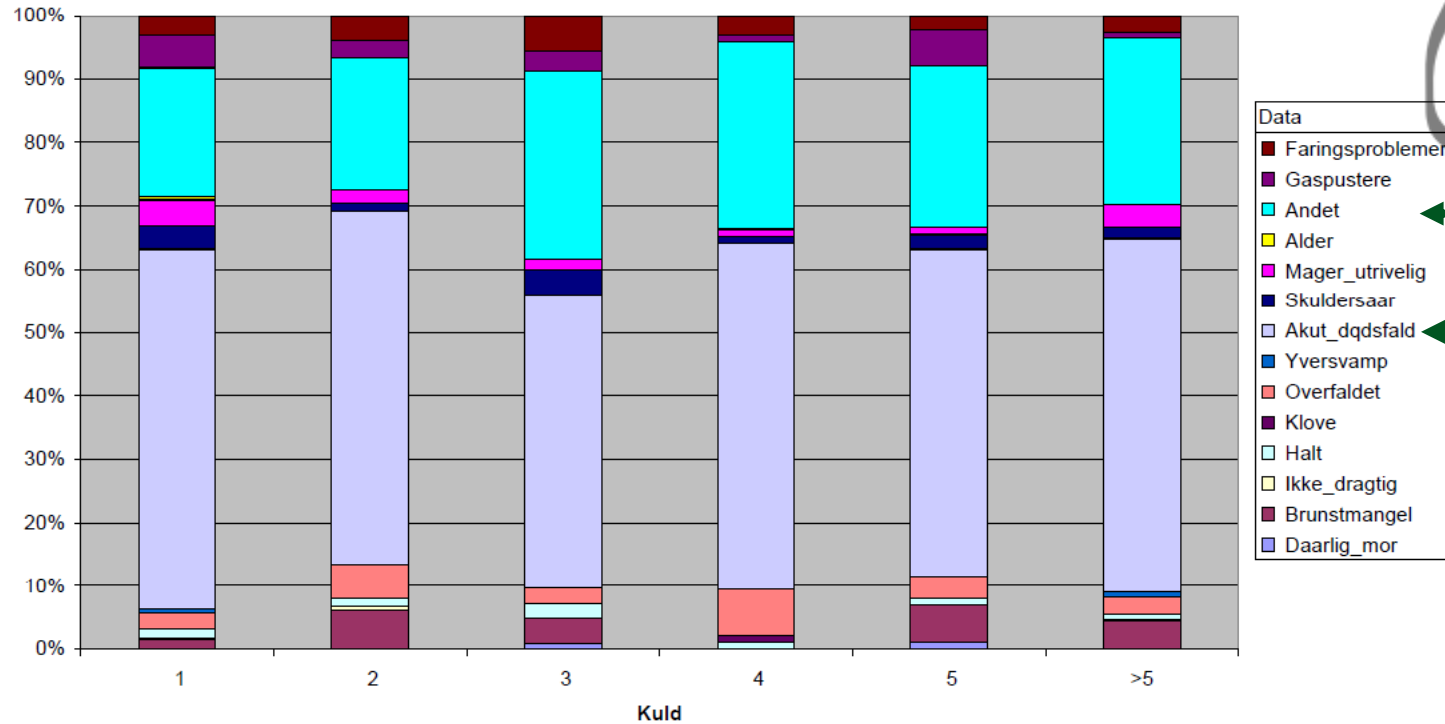
	Top 25%		Bottom 25%
Pigs weaned/sow/year	39.4	35.1	31.5
Sow mortality	12.9	14.5	17.2

Two risk periods in a sow's cycle



Causes of death on 17 farms

Cause of exposure, self-dead sows



Primary causes of death

"Other"
Acute deaths

Figur 3: Årsager til afgang for selvdøde søer i de 17 besætninger fordelt på kuldnummer.



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Causes of sow mortality in the farrowing unit



1 week pre-farrowing until weaning



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...mere end bare en dyrlæge

Causes of sow mortality in the farrowing unit



Farrowing unit

→ 7 sows died as gas blowers

Laboratory

→ Maybe 1 sow died as gas blower



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What is a gas blower?

- ✓ A gas blower is a sow (typically) that dies following infection with the bacterium *Clostridium novyi*.
- ✓ The infection leads to a remarkably fast accumulation of gas in the tissue after the pig has died.
- ✓ The *Cl. novyi* bacterium is naturally present in our surroundings and it is not unusual to find the bacterium in the liver of healthy sows.



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Causes of sudden sow death in the farrowing unit

A comprehensive study (2019) analysing the causes of sow mortality in the farrowing unit concluded that:

The three main causes of death are

1. Torsion of liver (42%) may occur at any time during lactation, but seems particularly common after approx. 3 weeks of lactation. The cause is unknown.
2. Farrowing complications (mainly retention of foetuses) (17%)
3. Infection (17%)



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Causes of sudden sow death in the farrowing unit

A comprehensive study (2019) analysing the causes of sow mortality in the farrowing unit concluded that:

The three main causes of death are

NO GAS BLOWERS

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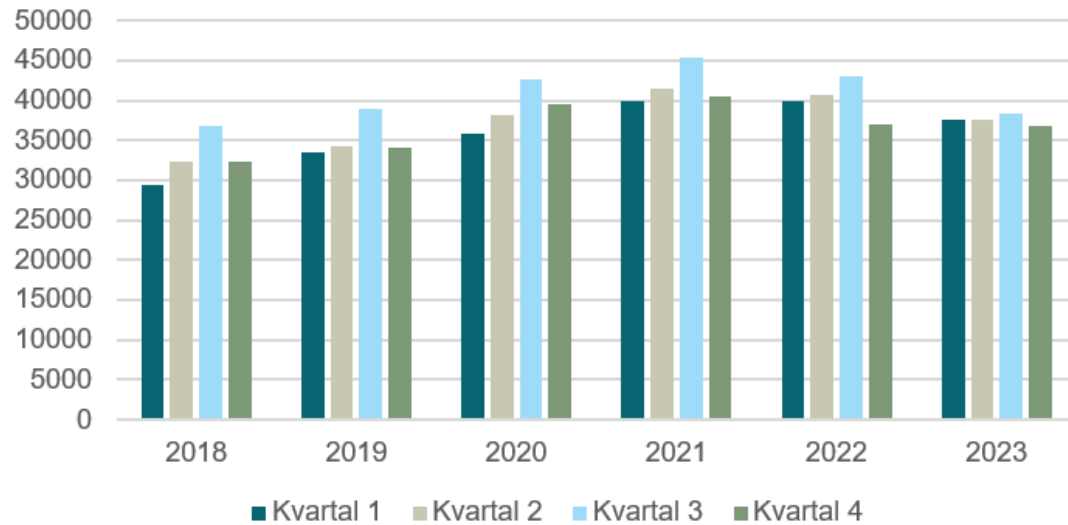




What can I expect...?

Number of sows delivered to DAKA peaks in the summer

Number of sows sent to DAKA

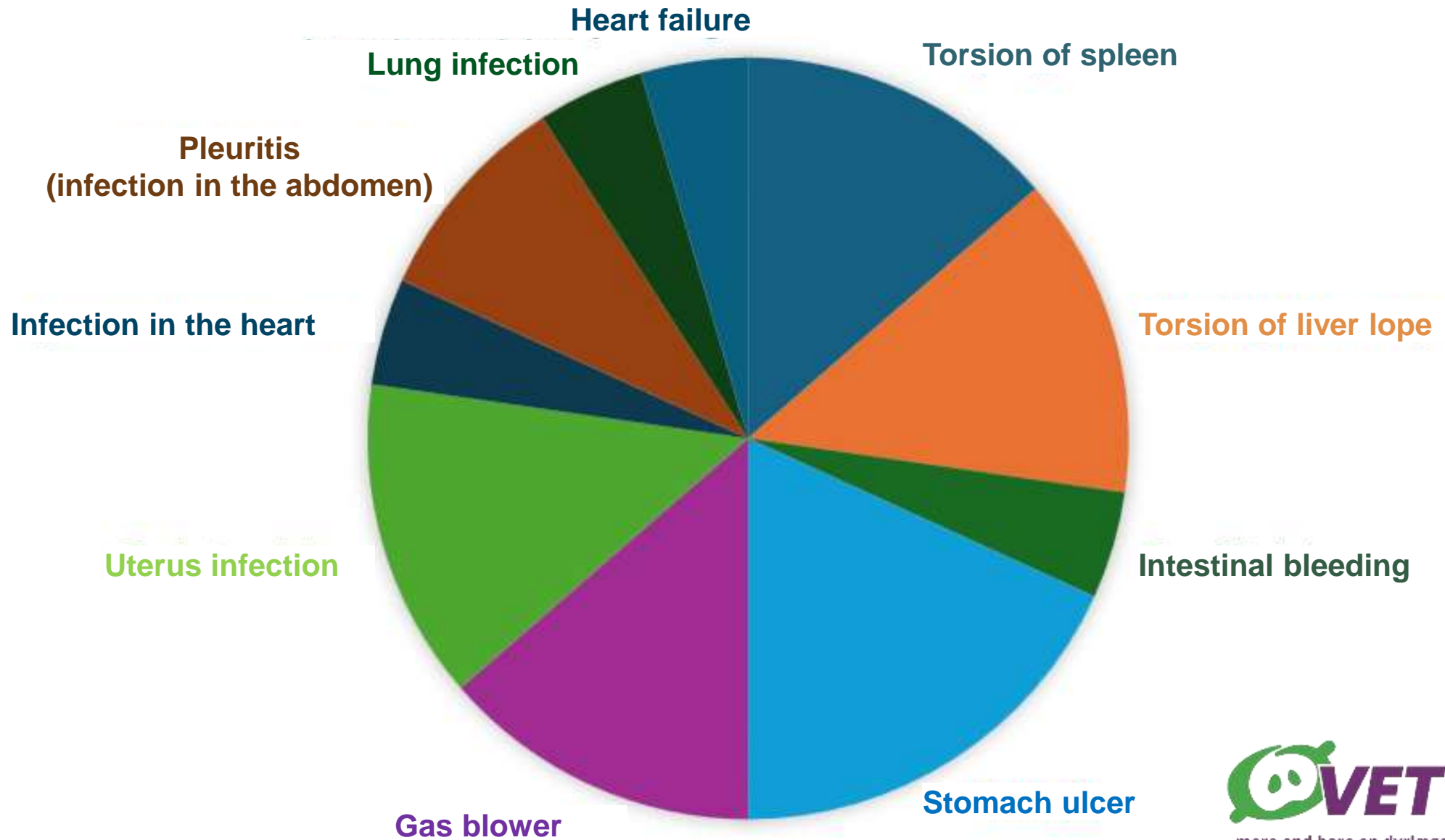


Sow mortality, summer?

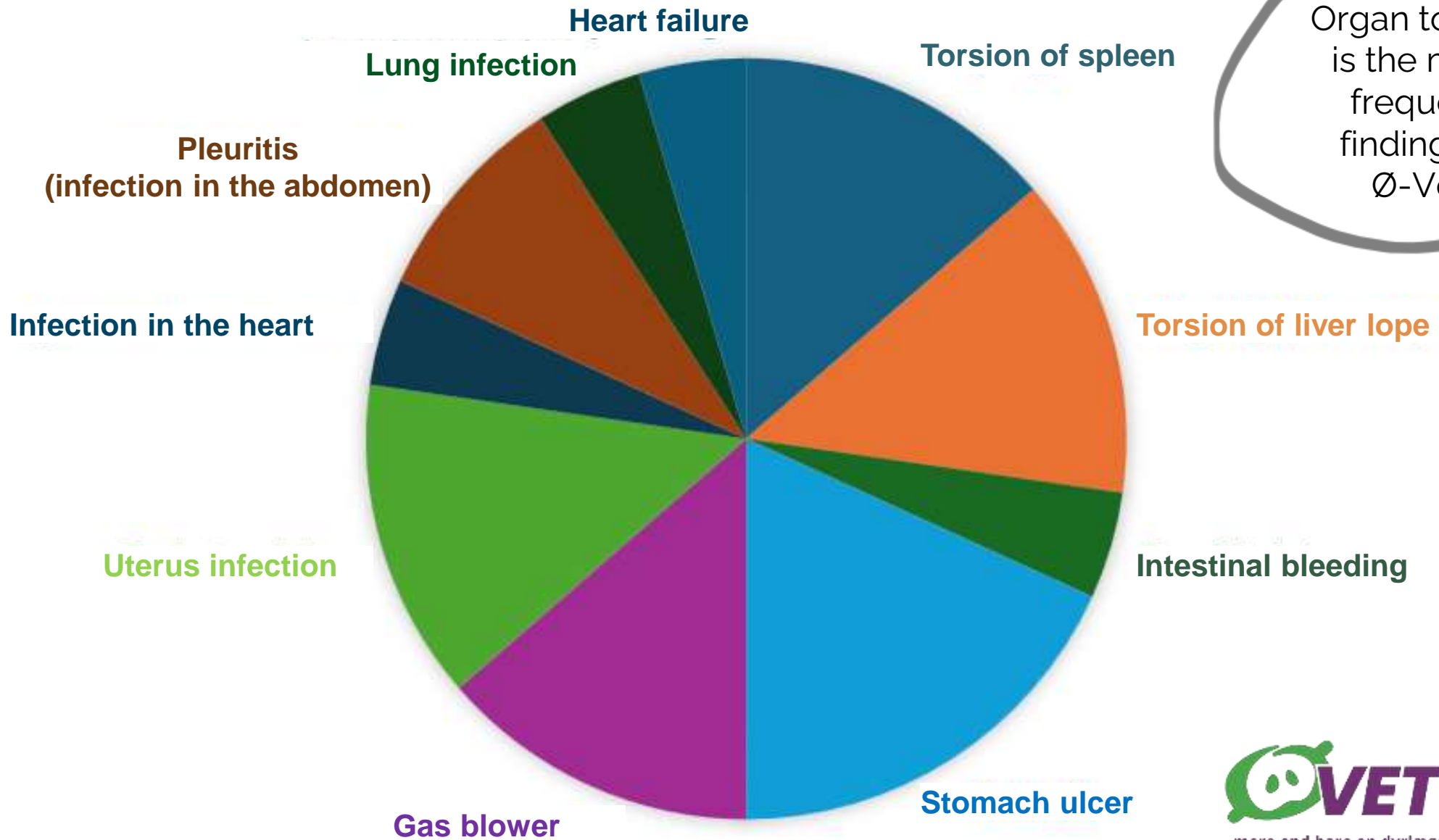
- Heat
- Feed
- Summer holiday (harvest)



REASONS FOR SOW MORTALITY IN ONE FARM

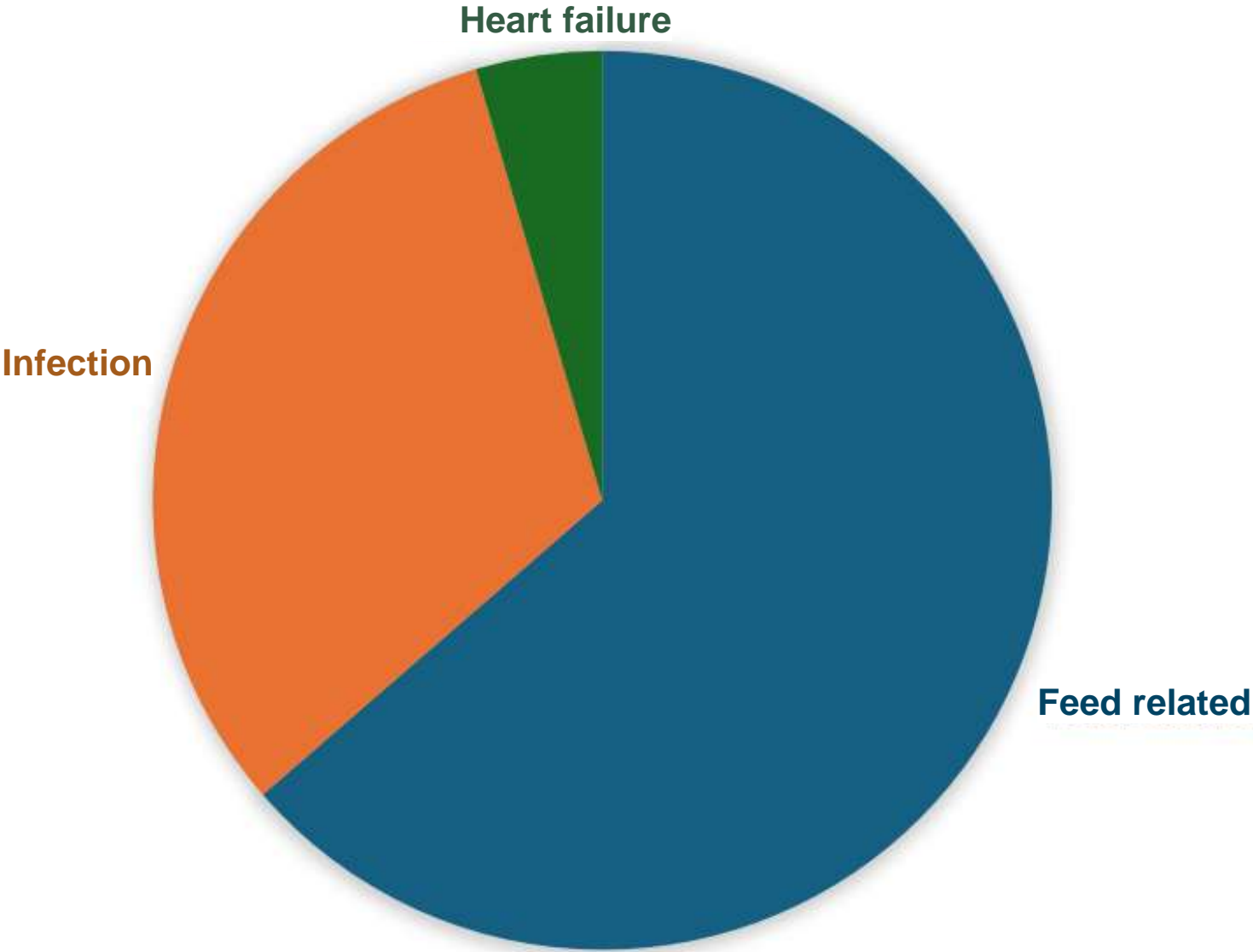


REASONS FOR SOW MORTALITY IN ONE FARM



Organ torsion is the most frequent finding by Ø-Vet

REASONS FOR SOW MORTALITY IN ONE FARM



What to do?

Organ torsion and intestinal haemorrhage

- ✓ Feed quality
 - ✓ Hygiene
 - ✓ Toxins
 - ✓ Analysis
- ✓ Fibre – soluble and non-soluble
- ✓ Texture/grinding



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...mere end bare en dyrlæge

What to do?

Gastric ulcer

- ✓ Grinding
 - ✓ Pellets?
 - ✓ 10-15% rolled barley
 - ✓ 50% < 1 mm – the rest above 1 mm!
- ✓ USK (extended post-mortem examination)
- ✓ Post-mortem examination course (follow us on SoMe)



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What to do?

Inflammation

✓ Identify the cause 😊



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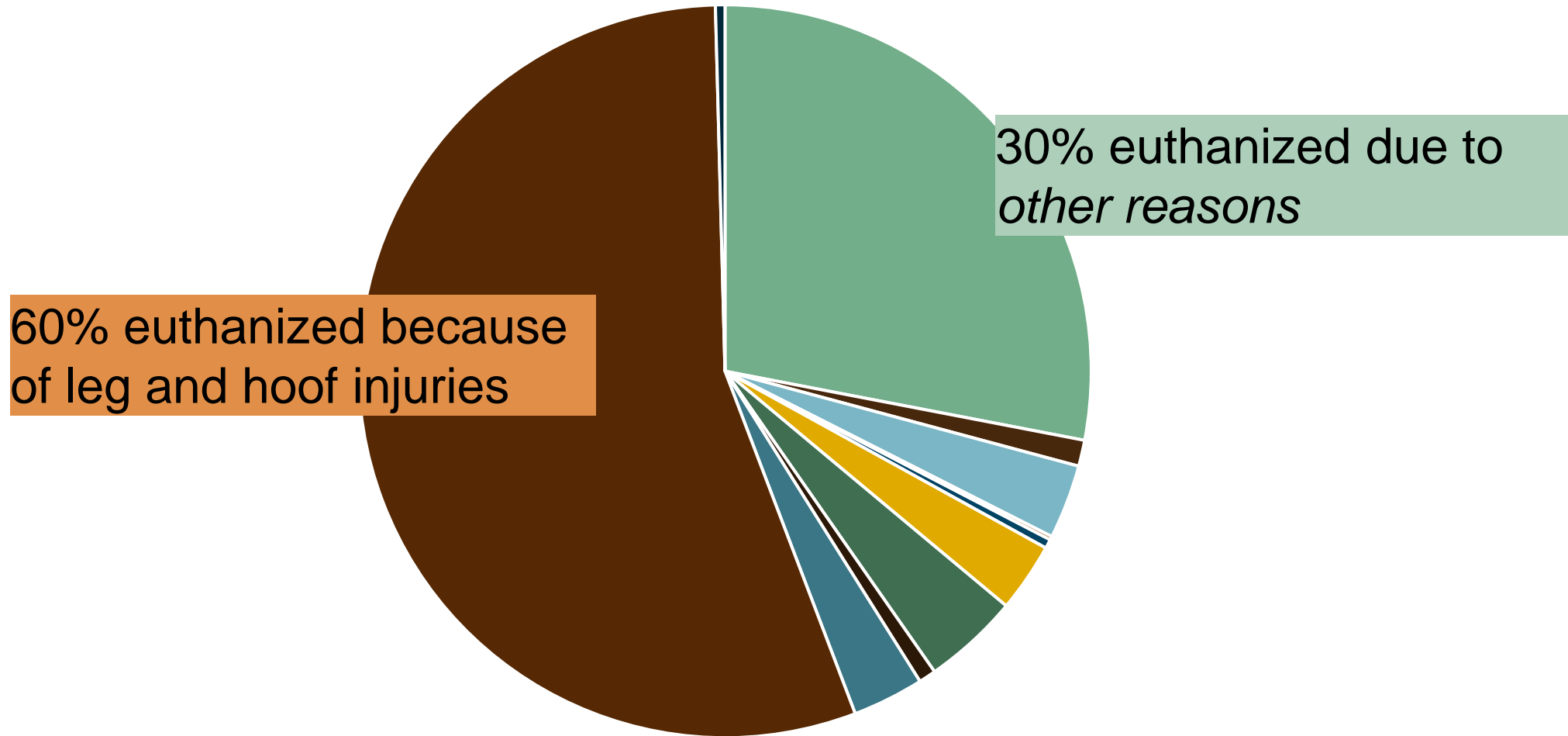


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...mere end bare en dyrlæge

What do we know about the euthanized sows



- Other
- Udder
- Unthrifty
- Reproduktion
- Shoulder
- Leg/h hoof
- Farrowing
- Prolaps
- Stress/fight
- Maternal issues
- Stomach ulcer

Euthanized due to leg and hoof injuries and lameness



Pastern ulcers developed in the farrowing unit increase the risk of infection

80-90% heal before the next farrowing
Trial report no. 1016



Long claws increase the risk of slipping

Long dew claws increase the risk of tearing and infection



Fighting and slippery floors increase the risk of "sports injuries" and fractures

40-50% of the sows became lame after grouping in the gestation pen
Trial report no. 1232



Assessment of hoof of 935 gestating sows from 21 farms



Assessment of hoof of 935 gestating sows from 21 farms



Long dew claws
30-50%



Long claws 10-15%
Uneven claws 20%



Overgrown
heel 70-80%



Crack in white line
50-60%

Percentage of scores 3 + 4

Assessment of hooves of 935 gestating sows from 21 farms

Same type of hoof problems regardless of mortality rates

A higher frequency of sows with severe hoof changes on farms with high sow mortality rates

Hoof problems correlated to lameness:

- Uneven claws
- Pastern ulcers
- Loose wall
- Ulcer/swelling of the coronary border



Recipe for healthy hooves

- Check hooves and leg position of gilts repeatedly during growth
- Final check in insemination stall
- Low stocking density in gilt pens
- Do not inseminate pigs with severe ulcers/injuries on hooves, coronary border and pasterns
- Trim claws on young sows



	Recommendation
50-85 kg	0.75-1.0 m ² /gilt
85-110 kg	1.0-1.5 m ² /gilt
110 kg +	1.5-2.0 m ² /gilt

Recipe for grouping

- Only inseminate sows that can be expected to successfully manage gestation
- Stable groups
- Group gilts before mixing with sows
- Identify gilts and risk sows
- Increase feed supply by 50% before grouping + the following 4-5 days
- Access to straw/hay/wrap, beet pellets, wheat bran, oat/hulls



Recipe for daily supervision

- All sows must be observed moving every day
 - 90% of all treatments are attributed to leg and hoof problems
- Always work in pairs
- Straw will make sows stand up
- Pay extra attention to gilts and pens housing recently mixed sows
- Risk sows are checked and monitored the following days
- Move severe cases to the hospital pen



What should you do on your farm?

- A solid data basis supports a dedicated effort
- Two risk periods: grouping and farrowing
- Seasonal variations

- Toxin analysis of grain and straw
- Hygiene

- Gilts must be excessively nursed
- Identify gilts and risk sows

