

STOMACH ULCERS IN LACTATING SOWS ARE NOT ASSOCIATED WITH LOW FEED INTAKE

T.S. Bruun¹, J. Vinther¹, E.O. Nielsen¹

¹Danish Pig Research Centre, SEGES P/S, Copenhagen

Background

A recent Danish investigation of sows at slaughter showed that 51 % of the sows had ulcers or scars in the esophageal part of the stomach. However, there is scarce information on how stomach ulcers might affect the wellbeing of sows. A reduced feed intake could be an indicator of reduced welfare and it may be assumed to be an indicator of pronounced stomach ulceration or scarring.

Objective

The aim of this study was to determine whether low/high feed intake could be associated with the stomach health in sows.



Association between feed intake in lactation and stomach index was investigated in three large herds..

Materials and Methods

- Three herds (1,200-1,400 sows) using liquid feeding were included in the study.
- Daily feed allowance was registered for sows individually.
- Low daily feed intake (LOW) was defined as the lowest 20 per cent of the sows within-herd, whereas high daily feed intake (HIGH) was defined as the highest 20 per cent of the sows within-herd.
- A total of 96 LOW and 96 HIGH sows across the three herds were included.
- The herd-managers selected sows for culling day 0 to 8 post-weaning.
- Sows were selected for the study based on season and parity.
- The esophageal part of the stomachs were inspected visually and palpated by a pathologist.
- The pathological changes were described by an index from 0 to 10. Index 0-5: no or minor changes. Index 6-8: degrees of ulcer and/or scar in the pars esophagea. Index 9-10: stenosis of the esophageal lumen.
- Data was analysed using PROC GLIMMIX in SAS.

Results

The results showed that the probability of having gastric ulcers with an index from 6 to 10 ($P=0.982$) or 8-10 ($P=0.312$) was identical for LOW and HIGH sows. There were no interactions between herds and occurrence of gastric ulcers, but the prevalence of gastric ulcers with an index of 6-10 differed between herds ($P<0.000$), and herd 2 had the highest prevalence of stomach index 6-10 (67.3 %), see Figure 1.

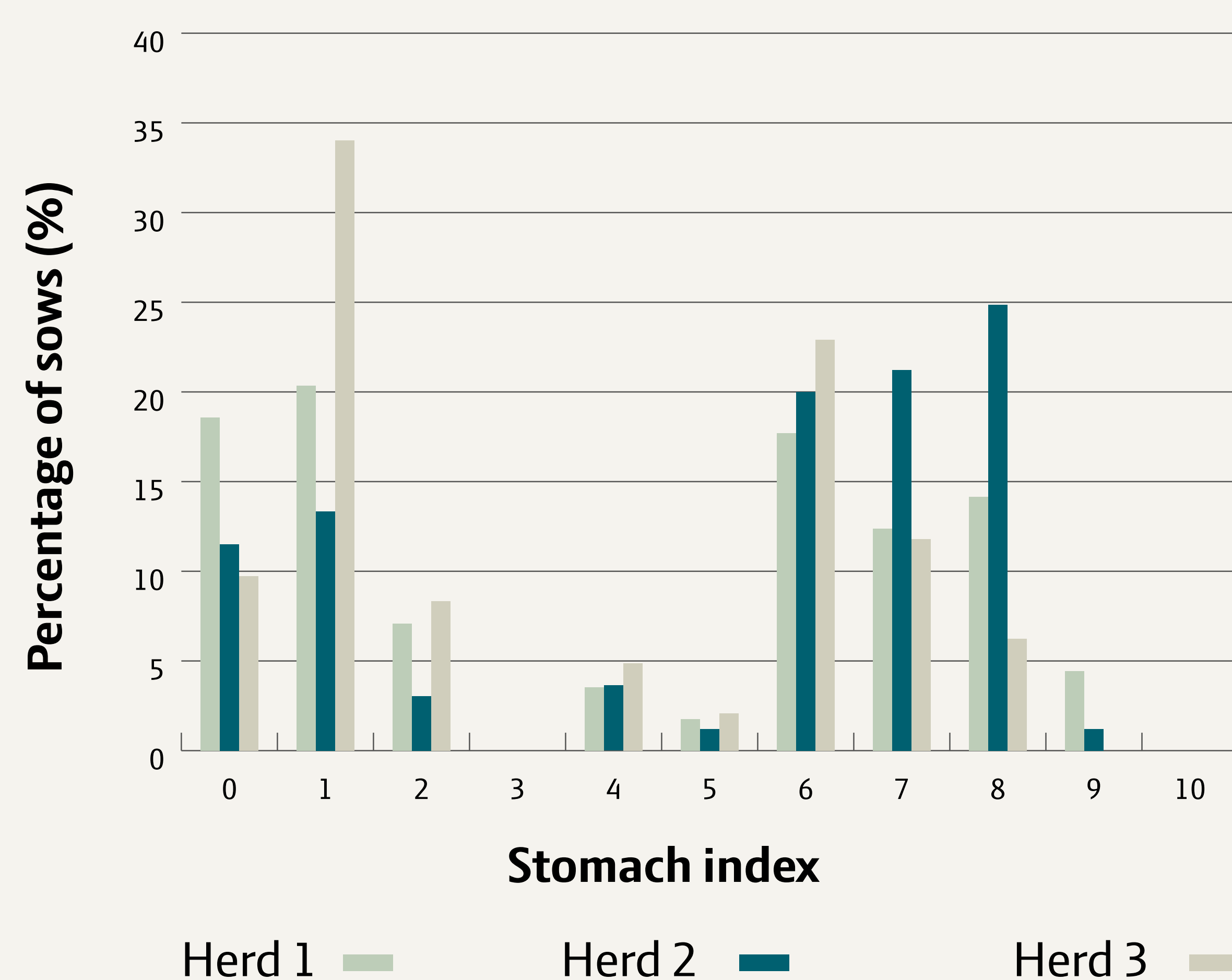


FIGURE 1. DISTRIBUTION OF STOMACH INDEX IN CULLED SOWS FROM EACH OF THREE HERDS

Conclusion

Based on the present data, feed intake cannot be used as a tool for prediction of stomach ulcers in lactating sows.

Acknowledgements

The project received financial support from the EU and the Rural Development Programme under the Danish Ministry of Food, Agriculture and Fisheries. Journal no. 32101-U-13-00237.

CONTACT
Elisabeth Okholm Nielsen
Danish Pig Research Centre
T +45 3339 4325
M +45 2463 1685
eon@seges.dk

