












Livestock Science

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A study of associations between gastric ulcers and the behaviour of finisher pigs

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Highlights

- Gastric ulcers commonly occur in modern pig production.
- The welfare implications of gastric ulcers are uncertain.
- Associations between gastric ulcers and changes in pig behaviour were found.
- Behavioural changes indicate that gastric ulcers in finisher pigs may be painful.
- Suggests a potential dilemma between production efficiency and [animal welfare](#).

Abstract

Gastric ulcers are a common condition in finisher pigs. A study was conducted to investigate the hypothesis that gastric ulceration alters the behaviour of finisher

pigs. Two one-hour observations (from video recordings) of home pen behaviour were conducted in finisher pigs, at two farms (one in Denmark and one in Scotland), in the days immediately prior to slaughter. Stomach condition was assessed post mortem according to a pre-established ulcer score index. The behaviour of pigs with healthy stomachs ($n = 36$) was compared with the behaviour of pigs with deep ulceration of the pars oesophagea ($n = 26$). Assessment of various predefined postures and behaviours was made by an observer blind to the gastric ulcer status of the observed pigs. Behavioural data from the two sites were combined in a single analysis. Pigs with gastric ulcers tended to spend less time idle ($p = 0.081$) and less time lying on their left side ($p = 0.064$), and significantly more time standing ($p = 0.009$), or walking ($p = 0.038$) compared to healthy pigs. Pigs with ulcers also showed an increased frequency of posture changes ($p = 0.02$). A decrease in time spent lying on the left and an increase in standing/walking could both be interpreted as attempts to avoid liquid gastric contents pooling in the cranial region of the stomach. This along with the higher level of posture changes observed may indicate some degree of pain/discomfort associated with the presence of gastric ulcers in pigs. This study is the first to identify apparent behavioural differences between finisher pigs with or without gastric ulcers, and further work is needed to establish to what extent the apparent behavioural differences are a consequence of pain or discomfort for the animals concerned. Since gastro-oesophageal ulceration of pigs is associated with pelleting and fine grinding of feed which in turn is linked to increased growth efficiency there may be a dilemma between on one hand concern for preventing gastric ulcers and on the other hand concern for the efficiency and sustainability of pig production.

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Keywords

Gastric ulcer; Pigs; Behaviour; Welfare

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