

Reduced occurrence of gastric ulcer in silage fed pigs

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Interest is increasing to use silage as an alternative feed source for fattening pigs. Feeding silage could improve gut health, due to increased fibre content and/or particle size. To evaluate the influence of silage on the mucosa in the *pars oesophagea* (PO) and the *pars glandularis* (PG) region of the stomach, two studies were performed. Pigs were fed silage, replacing 20% of crude protein intake (g/kg). The hypothesis was that silage would reduce gastric ulcers. In study 1, 128 fattening pigs were fed a commercial control feed (Pellet-C) or received silage in a pellet (Pellet-S) or fresh in a total mixed ratio containing chopped silage (4-15 mm)(TMR-Ch) or intensively treated silage (1-3 mm)(TMR-Pr). At slaughter, 40 stomachs were randomly collected (10 per treatment, balanced regarding sex) and visually scored for changes in the mucosa, based on an established scoring criterion. In study 2, 126 pigs, 30-70 kg, were allocated to either the TMR-Ch, Pellet-S or Pellet-C diet. In the end of the study, six pigs per treatment were randomly chosen (balanced regarding sex), and euthanized and stomachs were evaluated as in study 1. If not selected, pigs continued in the production. In study 1, diet had significant effect on ulceration in the PO region ($P=0.001$), but did not affect the PG region significantly. Pigs fed the TMR-Ch and TMR-Pr had lower occurrence of erosions than pigs fed the Pellet-S and Pellet-C diets ($P=0.001$). Erosions were found in 44% and 50 % of the pigs in the Pellet-S and Pellet-C diet respectively. Preliminary results from study 2 are similar to those in study 1, with lower occurrence of erosions when fed the TMR-Ch diet. In conclusion the results indicate that feeding fresh silage diets prevents gastric ulcers in the PO region and can positively affect the gastric health of the pigs.

Millet

(Millet et al. 2012; Presto Åkerfeldt et al. 2018)

Millet, S., Kumar, S., De Boever, J., Meyns, T., Aluwé, M., De Brabander, D. & Ducatelle, R. (2012). Effect of particle size distribution and dietary crude fibre content on growth performance and gastric mucosa integrity of growing–finishing pigs. *The Veterinary Journal*, 192 (3), 316–321. <https://doi.org/10.1016/j.tvjl.2011.06.037>

Presto Åkerfeldt, M., Holmström, S., Wallenbeck, A. & Ivarsson, E. (2018). Inclusion of intensively manipulated silage in total mixed ration to growing pigs – influence on silage consumption, nutrient digestibility and pig behaviour. *Acta Agriculturae Scandinavica, Section A — Animal Science*, 68 (4), 190–201. <https://doi.org/10.1080/09064702.2020.1725104>