

GASTRIC ULCERS AND DIARRHOEA ARE ASSOCIATED WITH REDUCED PRODUCTIVITY IN FINISHER PIGS

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CONCLUSION

This trial showed that gastric ulcers and diarrhoea have an influence on the productivity with castrates being more sensitive to gastric ulcers than females.

Introduction

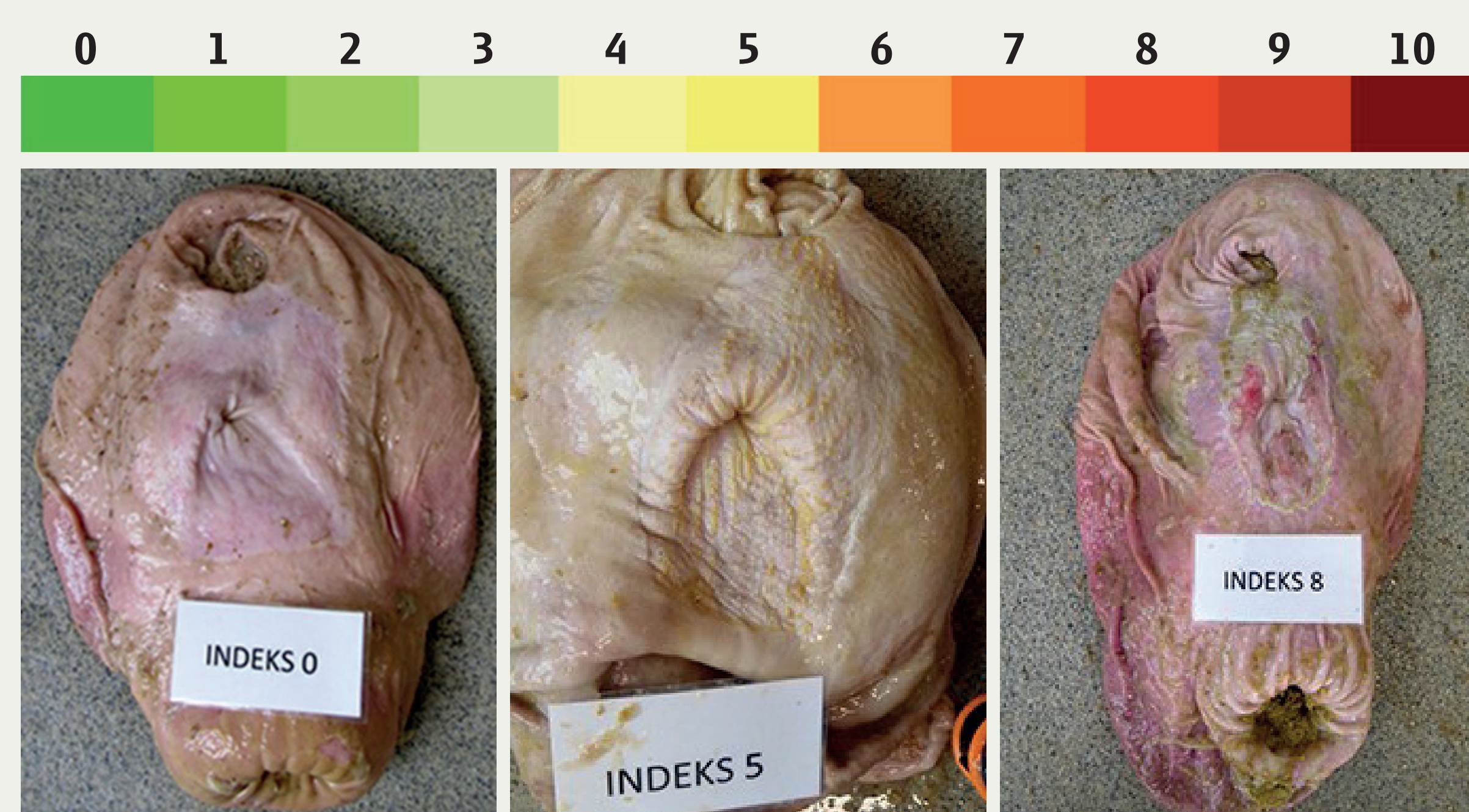
It has previously been established that pigs with severe gastric ulcers have a reduced daily weight gain. But the association between gastric ulcers and feed conversion rate is unknown. A common cause of diarrhoea is *L. intracellularis*, and high excreting pigs have a reduced daily weight gain. Furthermore, it has been reported that pigs with unspecific diarrhoea have a poorer feed conversion rate.

Purpose

Investigate the association between gastric ulcers, diarrhoea, daily weight gain, and feed conversion rate in finisher pigs.

Materials and methods

A total of 526 pigs (Danish LYxD, females/castrates) were followed from 30 kg live weight until slaughter. The feed consumption and weight were recorded for each pig by an electronic feed station. The diarrhoea status (<18% dry matter = diarrhoea) for each pig was determined four times during the study period. At slaughter, stomachs were collected and scored on a 11-level gastric ulcer scale. Data analyses was performed with mixed models in SAS by the Proc Mixed function.



Pictures of different levels of gastric lesions with scoring on the 11-level gastric ulcers scale

Results

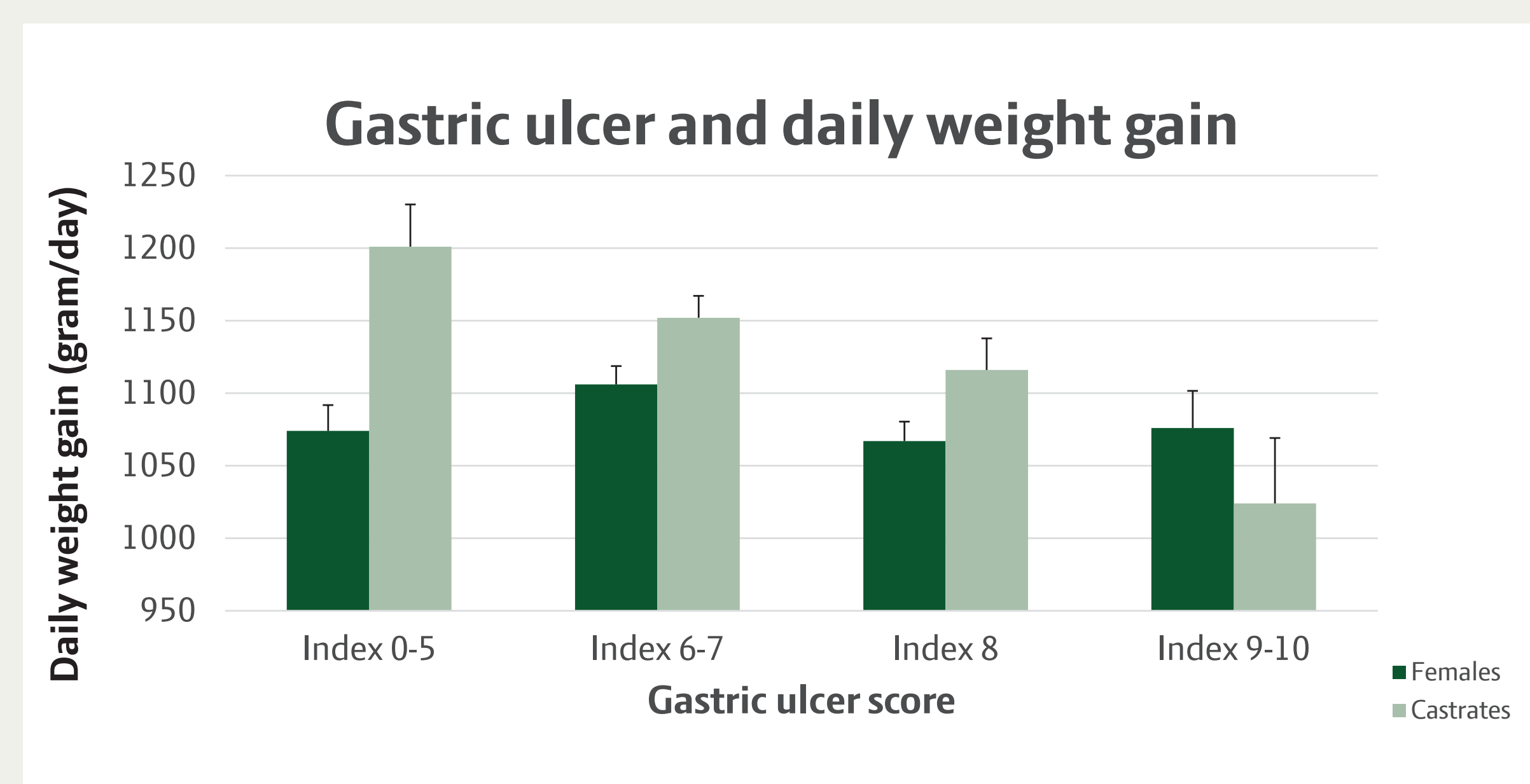


FIGURE 1. ESTIMATED VALUES OF DAILY WEIGHT GAIN (LS-MEANS) BY GASTRIC ULCER SCORE IN FEMALES AND CASTRATES. ERROR BARS = SEM

Daily weight gain

A strong association between daily weight gain and gastric ulcer score ($p=0.001$) as well as diarrhoea ($p=0.001$) was identified. Castrates with severe gastric ulcers (Score 8-10) had a reduced daily weight gain compared to castrates with no or mild gastric ulcers (estimated reduction: 177 gram/day). This was not the case with females. Pigs with high prevalence of diarrhoea had a reduced daily weight gain compared to pigs with no diarrhoea (estimated reduction: 51 gram/day).

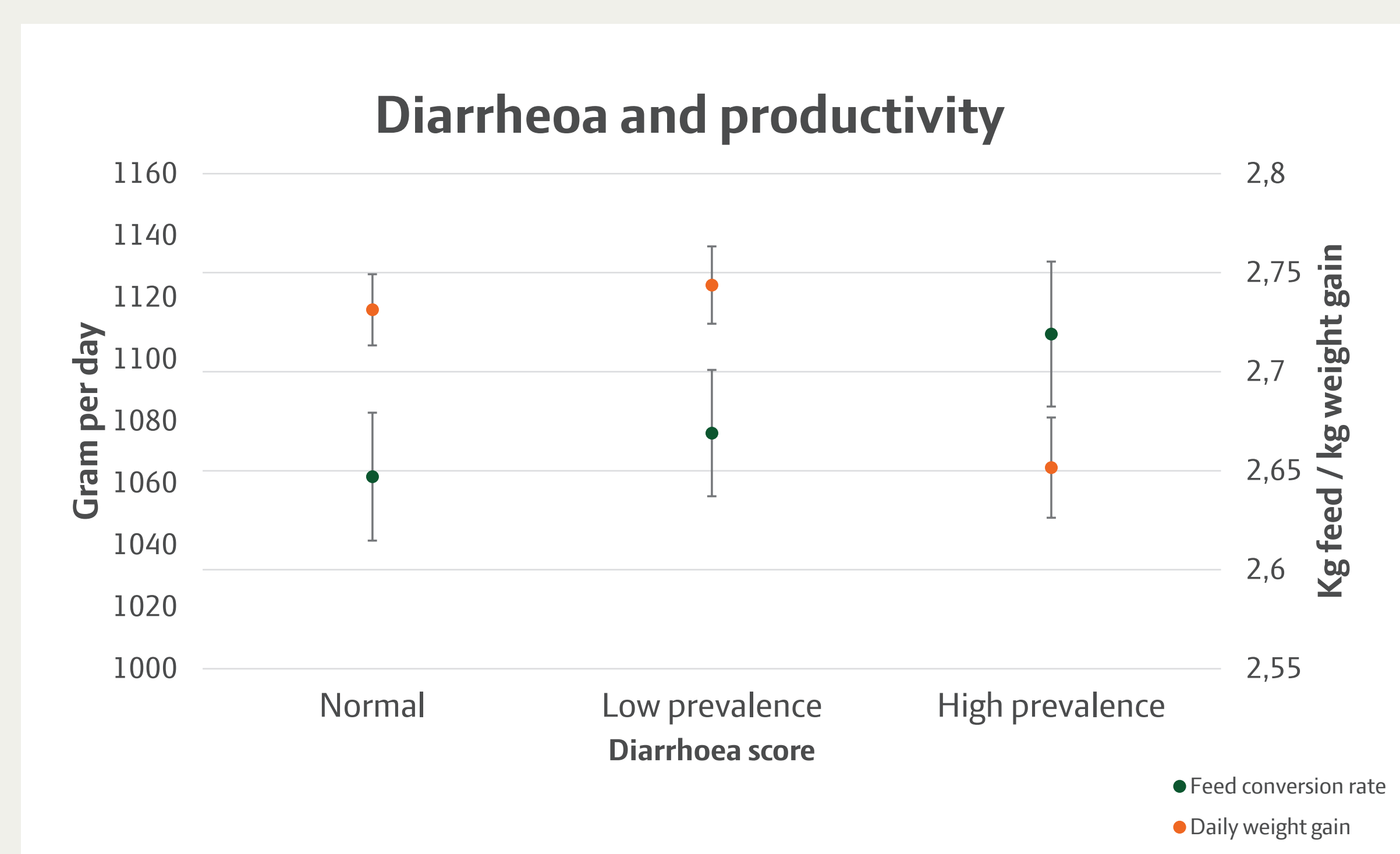


FIGURE 2. ESTIMATED VALUES OF DAILY WEIGHT GAIN AND FEED CONVERSION RATE (LS-MEANS) BY DIARRHOEA SCORE. ERROR BARS = SEM

Feed conversion rate

An association between diarrhoea and feed conversion rate was identified ($p=0.021$). Pigs with high prevalence of diarrhoea (>1 positive sample out of four total samples) had a higher feed conversion rate compared to pigs with no diarrhoea (estimated increase: 0.07 kg feed/kg weight gain).

In this trial, there was no significant association between gastric ulcers and feed conversion rate.

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