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The microbial status, nutrient and energy digestibility of diets for farmed
minks, supplemented with triticale and maize grain silage

S u m m a r y

The objective of this study was to determine the effect of triticale and maize grain silage on nutrient and energy digestibility and the microbial status of diets and faeces in mink. Two digestibility trials were conducted. In the first trial the experimental factor included diet supplementation with maize grain silage and triticale grain silage in experimental groups DK and DP, respectively.

In corresponding control groups, KK and KP, the source of carbohydrates was steamed ground triticale and maize meal. The same batches of triticale and maize were used for both treatments. The trials were performed on 10 clinically healthy female American mink, divided into two equal groups. The animals were placed in individual metabolism cages equipped for quantitative collection of faeces. A five-day experimental period proper was preceded by a five-day adjustment period. A microbiological analysis of feed and faeces was performed on samples collected on the last day of the specific experimental period. The total counts of *E. coli*, *Enterococcus sp.* and *Lactobacillus sp.* were determined. The addition of maize grain silage to feed contributed to an increase in the counts of lactic acid bacteria in diets and mink faeces. These changes could be indicative of more beneficial proportions between bacterial groups in the gastrointestinal tract of mink fed diets supplemented with cereal grain silage, as compared with control groups. Diet supplementation with maize grain silage significantly affected nutrient digestibility, except for crude fiber. A similar trend was observed for triticale grain silage, but the noted differences were statistically insignificant, although there was a considerable improvement in the digestibility of N-free extractives. Cereal grain silage may be considered a valuable carbohydrate source in mink nutrition. Under local production conditions, maize grain silage appears to be particularly beneficial, due to both probiotic and economic aspects.