

THE INFLUENCE OF FABA BEAN SEEDS AND ENZYMES ON NUTRIENT DIGESTIBILITY AND NITROGEN BALANCE IN PIGS

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Summary. The influence of faba bean seeds and enzymes on nutrient digestibility and nitrogen balance in pigs fattening was studied experimentally. The experiment comprised 25 hogs (Polish Large White/Pietrain crosses) – 5 groups of 5 pigs in each. In the experimental diets soybean meal was replaced by faba bean seeds (var. Nadwiślański), in the amount of 21.5 - 22.5% or 33.0-35.0%; diets 3 and 5 were additionally supplemented with feed enzymes (β -glucanase, pentosanase, hemicellulase, pectinase and xylanase). It was estimated that partial substitution of soybean meal by faba bean seeds (21.5 – 22.5%) guaranteed high nutrient digestibility and ensured a high nutritive value of diets for pigs fattening. Addition of feed enzymes to the diets with faba bean seeds caused an increase of nutrient. Furthermore, they had a favourable effect on nitrogen retention and utilization.

The results of our study confirm the possibility of partial substitution of soybean meal by faba bean seeds. In the case of its complete substitution, diets should be supplemented with feed enzymes.

Keywords: pigs, faba bean, enzymes, digestibility, nitrogen balance.