PERFORMANCE OF EARLY WEANED LAMBS FED DIETS WITH WHOLE RAPE SEEDS

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INTRODUCTION

High yields of rape seed in Poland and technological limitations of obtaining oil are the main causes for which attempts are being made to utilizate whole or ground rape seeds in animal nutrition. Generally speaking positive results were obtain when this feed was used in feeding of dairy cows (Palmquist and Jenkins 1980) and calves (Sharma et al. 1986). No data is available conserning feeding of lambs.

Experiment was carried out to investigate the effect of feeding "00" varieties of rape seeds in complete pelleted diets for lambs on weight gains, feed utilization and health condition of animals.

MATERIALS AND METHODS

75 crossbreed lambs of Polish Merino x White Face Meat Breed, 88 days old, with the initial weight of about 23 kg, were divided into three groups. Group I /control/ was fed diet with soybean meal /15 %/. The amount of soybean meal in diets for animal from groups II and III was reduced to 5 %. Simultaneously, 5 and 10 % of rape seeds respectively were introduced. All diets were isoprotein /15.6 % CP/kg DM/ and isoenergetic (11.0 MJ ME/kg DM). The fattening lasted 30 days.

RESULTS

Results of experiment are showed in table 1.

Table 1. Results of experiment

Item	Groups		
	I	II	III
Daily live weight gains (g)	280 ± 24 a	328 ± 26 b	339 ± 24 b
Consumption per 1 kg gain of live weight:			
crude protein (g)	943 ± 86	925 ± 79	955 ± 68
ME (MJ)	64,7 ± 6,1	66,3 ± 5,2	65,2 ± 5,4

Mean daily gains were: 280 g in group I, 328 g in group II and 339 g in group III. Differences between group I and groups II and III were statistically significant ($P \leq 0.05$). Energy consumption (MJ ME) per 1 kg body gain was 64,7 in

group I, 66.3 in group II and 65.2 in group III, while the consumption of crude protein was 943, 925 and 955 g respectively. Differences between groups were not significant.

Clinical laboratory tests showed that red and white blood cell indices as well as mineral balance in lambs of all groups remained within norms of clinically healthy animals.

DISCUSSION

Small number of publications concerning application of rape seeds in feeding of lambs does not allow extensive discussion of the problem. Results of our investigations are in agreement with experiments conducted on calves (Sharma et al., 1986) in which 12 % of rape seeds in concentrates increase the rate of lambs growth and also improved feed consumption and utilization.

CONCLUSIONS

On the basis of our experiment it can be concluded that rape seeds can substitute part of soybean meal in complete diet for lamos. 10 % share of rape seeds in such diets resulted in higher live weight body gains of animals.

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