

ZOOTECHNICAL AND ECONOMICAL EVALUATION OF PROTEIN CONTENT IN PIG DIETS AND INFLUENCE ON THE CARCASS TRAITS.

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Summary. To achieve the objective and tasks of the research we selected pigs as experimental animals at the training and research farm "Vecauce". Two groups (control and experimental) of pigs were used, each group including 15 Yorkshire x Landrace crossbredd pigs of similar age, sex, live weight and origin. The influence of a low-protein content in the diet was studied during the fattening period, starting from 50 kg up to 100 kg live weight. Two kinds of feed were used. From 50 til 80 kg, control pigs were fed mixed feed with 16 % of crude protein, lysine 0.72 % and from 80 kg til 100 kg the controls received a low-protein diet – 14 % with lysine 0.72%. The experimental pigs were fed a low-protein (14 %) diet, lysine 0.75%, methionine+cystine 0.45% with a balanced content of other amino acids throughout experiment. The results showed that low protein diets decreased pig live weight, but the difference was not significant. Feed consumption per 1 kg live weight gain was also a little lower in experimental group. Low – protein content in pig diets did not lead to essential changes in "muscle – eye" area index or fat thickness, except for the amount of lean meat ($p < 0.05$). The morphological composition of the carcass did not show significant differences between groups. Economical calculations show that low – protein pig diets decreased the feeding costs about Ls 1.70 for 1 pig and consumption of crude protein was lowered by 34 g.

Key words: carcass composition, low - protein diets, amino acids, pig.