

CHEMICAL COMPOSITION AND INFLUENCE OF SAPROPEL ON LIVE WEIGHT GAINS IN FATTENING PIGS

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Summary. During thousands of years > 10 billion m³ of sapropel deposits were formed in lakes and marshlands of Lithuania. Sapropel accumulated considerable content of nature balanced bioactive materials: vitamins, particularly of B group, enzymes, essential amino acids, antibiotics, carbohydrates, estrogens, humic acids, fractions of lipids, growth and other biostimulants, also probiotics. The objective of experiment was to investigate the chemical composition of sapropel in selected lakes of Lithuania and to estimate the potential influence of sapropel on live weight gains in fattening pigs. It was estimated that organic sapropel is prevalent at Dobilios (84 %) and Kvietkinės (87%) lakes, and mineral–calcerous type of sapropel at Obelijos lake (level of calcium carbonate – 32%). Sixty Lithuanian White/Danish Landrace crosses were randomly divided into two equal groups (Groups 1 and 2) of 30 pigs in each. The experiment continued for 110 days. Pigs of control group (Group 1) were fed with commercial diet and experimental pigs (Group 2) were on the same diet supplemented with fresh organic sapropel from Kvietkinės lake. Supplementation of diet from 200 to 400 g of sapropel (Group 2) increased total live weight of pigs on 9.2 % and reduced consumption of feed on 11 % compared to controls in Group 1. These results demonstrated that inclusion of sapropel into the diet leads to significant increment of live weight gains and significant reductions of feed consumption in fattening pigs.

Key words: sapropel, pigs, feeding, live weight.