

THE EFFECTS OF GLYCEROL ON THE FERMENTATION OF NITROGENOUS MATTER IN THE RUMEN AND COW PRODUCTIVITY

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Summary. The trial was carried out with Lithuanian Black-and-White milking cows at the Institute of Animal Science of Veterinary Academy, LUHS in 2009. The cows were allocated into two analogous groups (Groups 1 and 2) by age, production and calving of 10 animals each. The diet in controls (Group 1) consisted of maize silos (58.8 %), lucerne silos (29.4 %), hay of perennial grass (11.8 %), concentrate feed *ad libitum* and minerals with vitamins. The experimental cows (Group 2) were fed the same diet *ad libitum* supplemented with 1% glycerol (according animal weight) and cows in Group 1 were served as control. The cows in Group 1 consumed daily 9.7 % more feed compared to controls (Group 1). Consequently, cows in Group 2 consumed daily on 0.75 kg more dry matter, had on 7.53 increased MJ NEL. This resulted in more stable lactation in experimental cows (Group 2). Daily milk production in Group 2 was on average 1.35 kg/day higher compared to cows in Group 1. There were no significant influence of glycerol supplementation on the fermentation of nitrogenous matter and carbohydrates in the rumen of cows.

Keywords: glycerol, diet, milk production, cows.