

EFFECT OF ORGANIC AND NONORGANIC COMPOUNDS ON FORAGE ORGANIC MATTER DIGESTIBILITY, WHEN COWS ARE FED RATIONS OF DIFFERENT NUTRITIONAL VALUE

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Summary. The effect of organic (B group vitamins, peptides, amino acids) and nonorganic (ammonium sulphate) compounds of forage organic matter digestibility using the I-stage in vitro method was studied. The experimental cows were fed balanced according to crude protein and metabolizable energy ration, nonbalanced ration and in case of provoked rumen acidosis. It was determined that when the I-stage in vitro digestibility system had been supplemented with optimal doses of peptides, amino acids and ammonium sulphate, hay organic matter (OM) digestibility increased from 3,52% to 7,47% when cows were fed balanced ration. When cows were fed nonbalanced ration and in case of provoked rumen acidosis, positive effect of above mentioned compounds was not obtained. Supplementation of the in vitro system with B group vitamins didn't improve hay OM digestibility. It is evident that peptides, amino acids and ammonium sulphate effect forage OM digestibility positively only when cows are fed balanced rations.

Keywords: cow, rumen, acidosis, OM digestibility, vitamins, peptides, amino acids, ammonium sulphate