

Effect of the supplement of ammonium phosphate-containing mineral mixture, buffering the rumen content in cows on their performance

Part II. Reproduction indices

Summary

The research covered 147 Black-and-White Holstein-Friesian cows in the age between 2 and 5 (lactation I - III). The cows were kept in three cow byres which differed in: keeping system, production level, milking system and feeding system. In all cow byres, 3 groups of cows were distinguished, i.e.: control group and two testing groups. The experimental index was mineral mixture. The cows in testing group were fed the tested mixture containing $(\text{NH}_4)_2\text{HPO}_4$, CaCO_3 , dolomite 18%, NaCl, CuSO_4 , ZnSO_4 in quantity from 150 to 250 g per day. The cows from control groups received the standard MMB mineral mixture in quantity of 150 g per day. In research the synonymous influence of testing mixture on the fertility indices was not found. In the first cow byre in winter season the best fertility was characteristic of the cows from group I (gestation interval 111,88 days; insemination index 1,38; calving interval 389,50 days) and in summer season cows in group III (gestation interval 105,43 days; insemination index 1,29; calving interval 380,71 days). In second and third cow byres in winter and summer seasons, the cows from group II were characterized by the best fertility. On the basis of the conducted studies, it should be stated that the fertility in the analyzed cows' population was more influenced by the herd than the tested mixture supplement or reproduction indices. Moreover, the basic reproduction indices were not negatively influenced by the tested mixture.

KEY WORDS: nutrition / dairy cows / reproduction indices / buffering additives / ammonium phosphate