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THE CONTENTS OF ORGANIC MATTER IN THE FORAGE OF MEADOW WITH DIFFERENT GRASSES AGROPHYTOCENOSIS FOR LONG-TERM USE

The purpose of the research was to identify the basic factors of influence on the contents of organic substances in forage of grass stands for longterm use.

Experimental work was carried out during 2011–2015 on a stationary field experiment of the Institute of Agriculture of Carpathian region of NAAS on dried pottery drainage of lowland meadows with dark gray podzol surface covered with gilded soil.

The lowest quality feeds in both the first and second cuttings were noted in unfertilized grass stands. The high proportion of low value grass species, which, due to the lack of mineral nutrition slowly accumulated green mass, resulted in an accumulation in the dry mass of only 10,0–10,9 % of crude protein and 7,8–8,0 % of albumen. The use of phosphorous and potassium fertilizers increased the crude protein content by 2,4 % in the first cut and 3,7 % in the second cut.

The highest content of crude protein (18,2 %) was recorded in the forage of the third cut of grass stand, which was fertilized with complete mineral fertilizers with increasing rates of nitrogen fertilizers to autumn. It should be noted that 100 kg/ha of nitrogen active substance was introduced on this herb before the third cut. With the application of 80 kg/ha of a. m. nitrogen under the third cut, the crude protein content was 17,6 %.

According to the correlation analysis, the proportion of crude protein was strongly plural dependence as a function of the amount of nitrogen fertilizers applied and leaf area index: correlation coefficient $r = 0,916$, determination coefficient $d = 84 \%$, since a linear correlation between crude protein content of sorghum protein and nitrogen fertilizer was stronger than, between the crude protein content and leaf surface index (respectively $r = 0,911$ and $r = 0,703$).

The mode of use had a great influence on the quality of feed. For threefold cut, during mowings in the earlier stages of grass development, the quality of the long-lasting herb feed improved: the crude protein content

in the first cutting increased by 1,5 %, crude protein by 0,5 %, crude fat by 0,3 %, and the fiber content decreased by 1 %.

Nitrogen accumulation in forage of different cereal grassland was influenced by nitrogen fertilizer rates and weather conditions. The content of nitrates for application N₁₅₀ did not exceed 0,105 %.