

EFFECT OF VARIOUS SELENIUM-CONTAINING ADDITIVES IN THE DIET ON PRODUCTIVITY, DIGESTIBILITY, NITROGEN EXCHANGE AND MINERAL ELEMENTS IN THE BODY OF BULLS

P. B. Zakharchuk

Podilsk State Agrarian-Technical University,
13, Shevchenko str., Kamyunetsk-Podilskyi, Khmelnytsk area, 32316, Ukraine

The results of researches on the productive indexes of bulls, digestion of feed and nitrogen exchange, mineral elements in the body of bulls for the use of various selenium-containing additives in their diets are given.

It has been established that various selenium-containing drugs did not significantly affect the consumption of feed by experimental groups of bulls. For each head of the control group, an average of 618 g of digestible protein was consumed per day, or 100 g per feed unit. In the 1st and 2nd experimental groups, these costs were 617–619 g per head, or 100 g per 1 feed unit.

At the same time, the average daily increments of animals of the 1st and 2nd experimental groups prevailed over control, respectively, by 67 g, or 8.7 % ($P < 0.05$); 82 g, or 10.8% ($P < 0.001$).

It was noted that an increase in the amount of selenium in the diet had a positive effect on the digestibility of nutrients in animals of experimental groups: the dry matter of the diet in the bulls of the control group was digested by 67.8 %, while the animals of the 1–2 experimental groups 71.3–72 %, which is 5.1–6.1 % more; the digestibility of raw fat in control bulls is 56.2 %, in experimental ones it is 9.3–10.2 % ($P < 0.05$) more. Moreover, the highest coefficients of digestibility of raw fat are noted in the bulls of the 2nd experimental group, which received in the diet of the selenium-containing additive Devivit.

Permeability of BER compared with control in animals of the 1st experimental group was 5.5; 2nd Experimental — 6.5%. In general, the best results from the digestibility of nutrients were obtained in a group of animals fed diethylenavir «Devivit» in the diet. The positive influence of the selenium — containing additives «E – selenium» and «Devivit» in the diet for exchange of calcium, sulfur, zinc, copper and selenium is established.

Keywords: ANIMALS, DIET, SELENIUM, DIGESTION, RAW FAT, DRY MATTER, BULLS, ADDITIVE, NUTRIENTS, MINERAL NUTRITION FACTOR, NITROGEN BALANCE.