

EFFECT OF PROBIOTIC BIOPLUS 2B[®] ON PERFORMANCE OF GROWING RABBIT

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Summary. The aim of this work was to study the efficacy of probiotic BioPlus 2B[®] dietary inclusion on performance of growing rabbits in summer conditions. One hundred and twenty 35-days-old New Zealand White rabbits were weaned and randomly divided into two equal groups with respect to litter size and body weight. Group 1 was served as control and fed a commercial and antibiotic-free diet. The rabbits in Group 2 were fed diet supplemented with 400 mg/kg of BioPlus 2B[®]. The animals were assigned to the diets *ad libitum* until 77 days of age. The probiotic inclusion corresponded to 1.28x10⁶ colony forming units (CFU) per g feedstuff, i.e. 6.4x10⁵ CFU/g of *Bacillus licheniformis* and 6.4x10⁵ CFU/g of *Bacillus subtilis* after pelletization. During the experiment of feed nutrient digestibility the rabbits were fed limited amount of feed. Each rabbit was identified, fed individually, each obtained its own feeding and stationary watering container. During the investigation, individual rabbit's excrements were collected twice a day, frozen and kept until chemical analysis was carried out.

Rabbits were housed individually in wire-mesh flat-deck cages (30x61x28 cm) under controlled conditions. The inside temperature was 18-23°C, however, due to the hot summer, it could reach sometimes 23-26°C. The treatment did not affect 77d body weight and 35-77d daily weight gain (2427 g and 34.4 g/day in Group 1, while 2434 g and 34.4 g/day in Group 2, respectively). Feed efficiency was comparable for both groups. The supplementation had a beneficial effect on the sanitary risk (3.3% and 23.3% in Groups 1 and 2, respectively), primarily due to the lower mortality between 35 and 49 days of age (0% and 71% of all losses occurred in this period in Groups 1 and 2, respectively). With a dose of 400 mg/kg of BioPlus 2B[®], the morbidity in Group 2 was by 3% and the mortality rate by 17% lower (P<0.002) compared to Group 1, resulting in a 20% decrease (P<0.001) of sanitary risk (morbidity+mortality) during the fattening. In conclusion, the results from this study indicate that it could be advantageous to supplement the diet of growing rabbits with BioPlus 2B[®] in summer conditions, primarily aiming to reduce the sanitary risk during the fattening period.

Key words: probiotics, rabbit, *B. licheniformis*, *B. subtilis*, growth.