THE EFFECT OF CHLORELLA VULGARIS IFR-111 ON MICROFLORA OF THE DIGESTIVE SYSTEM OF NEONATE CALVES

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Summary. The suspension of green algae Chlorella vulgaris is an ecologically clean, natural product easily assimilated by the organism of the animal. It contains all irreplaceable amino acids, vitamins, micro- and macroelements, unsaturated fatty acids, enzymes and others. Due to so rich chemical composition Chlorella is considered to be a natural biological stimulator of the organism.

The objective of this experiment was to examine the effect of Chlorella vulgaris IFR-111 on microflora of the digestive system of German Black & White calves. Sixteen neonate calves were divided by stratified random sampling according to sex and weight into 2 groups – control (Group 1) and experimental (Group 2) each of 8 calves. Group 1 was fed diet formulated on milk with start feed for calves "Milaflo" and Group 2 was fed milk plus "Milaflo" supplemented with 400 ml (twice daily x 200 ml) of Chlorella vulgaris IFR-111 suspension in concentration 10.8x10⁹/l (Спруж, 1990). The experiment lasted for 30 days. Faecal samples were collected from the rectum the day after arrival and once a week. The total number of enterobacteria, lactobacillus, aerobic and facultative anaerobic bacteria and enterococcus were determined.

There were no statistically significant influence of Chlorella vulgaris on the microflora population of the digestive system of experimental calves. However, in Group 2 the total count of enterobacteria was on 4.1 %, lactobacillus on 3.3 %, aerobic bacteria on 3.9 % and enterococcus on 0.4 % lower compared to the controls in Group 1 (P>0.05). In both groups the age of calves had statistically significant influence on microflora composition. During 30 days period the total count of enterobacteria increased on 22.4 %, lactobacillus on 18.7 %, aerobic bacteria on 32.0 %, and enterococcus on 16.3 %, respectively (P<0.05).

Key words: Chlorella vulgaris, microflora, feed, calves.