

## THE EFFECT OF *LACTOBACILLI PLANTARUM* AND *FERMENTUM* ON THE TOTAL COUNT OF ENTEROBACTERIA AND LACTOBACILLUS IN THE FAECES OF NEONATE CALVES

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**Summary.** The aim of this investigation was to evaluate the effect of *Lactobacillus plantarum* U-14 and *Lactobacillus fermentum* U-5 strains on the total count and the ratio of enterobacteria and lactobacillus in the faeces of neonate calves. Eight neonate calves were randomly divided into two equal groups - experimental and control. The lyophilized probiotic preparations *L. plantarum* –  $6 \times 10^8$  CFU (colony forming units)/g, and *L. fermentum* –  $2 \times 10^7$  CFU/g were used. The calves in experimental group were orally dosed with 2g of preparation twice daily with colostrum for the first 8 days after birth and to the calves in control group the preparation was not given. Further, the observations continued for 14 days after birth. Faecal samples were collected from the rectum every other day after morning feeding. For determination of lactobacillus in faeces MRS agar (de Man, Ragoza, Sharpe, Liofilchem, Italy), and for enterobacteria - McConkey agar, XLD and SS agar (Liofilchem, Italy) and Levine agar (Merck) were used.

The results from this study demonstrate that *L. plantarum* U-14 and *L. fermentum* U-5 strains during the entire experiment markedly influenced the total count and ratio of lactobacillus and enterobacteria. However, the highest impact was observed on the total count of enterobacteria, where reduction was highly significant ( $P < 0.001$ ).

**Keywords:** *Lactobacilli fermentum* and *plantarum*, enterobacteria, neonate calves.