

عنوان مقاله:

Comparative study of Bactogen ® and Protect ® probiotics on the histological structure of Partridge duodenum

محل انتشار:

اولین همایش منطقه ای دستاوردهای نوین و پژوهشهای دانش بنیان در میکروبیولوژی و بیوتکنولوژی (سال: 1401)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Background and Objective: Using probiotics instead of antibiotics is one of the alternative methods to maintain the health of livestock and poultry flocks. Bactogen probiotic contains *Bacillus subtilis* bacteria and Hiprotek probiotic contains *Enterococcus faecium*, *Pediococcus acidilactici*, *Streptococcus thermophiles*, *Lactobacillus bulgaricus*, *Lactobacillus rhamnosus*, *Lactobacillus plantarum*, and *Lactobacillus casei* bacteria. Therefore, the purpose of this research is to investigate the effect of Bactogen ® and Hyprotect ® probiotics added to the diet of the Partridge herd during the study of duodenal histomorphometry on the improvement and improvement of digestive function. **Methods:** In this study, 120 partridges were researched in three groups in a completely randomized block design. The three groups under investigation included a control group receiving a normal diet and groups receiving Bactogen ® and Hyprotect ® probiotics, respectively. After 5 weeks, partridges were killed and the small intestine duodenum was sampled for histological procedures. After being fixed in 10% formalin, the intestines entered tissue passage stages, and then by preparing tissue sections and staining with Hematoxylin-Eosin (H&E), the samples were analyzed in terms of the length and thickness of the villi, the depth and width of the crypts, the thickness of the muscle layer and the epithelium, and the number of Goblet cells were evaluated. **Results:** The results of this research showed that Bactogen ® and Hyprotect ® probiotics cause a significant increase ($P < 0.05$) in the parameters of villus length, crypt depth, and epithelial layer thickness compared to the control group. Also, an increase in the mentioned parameters was observed during the comparison of the Bactogen ® probiotic group with the Hyperprotect ® group, but there was no significant difference with each other ($P \geq 0.05$). **Conclusion:** According to the findings obtained in this research, it can be concluded that the use of Bactogen ® and Hyprotect ® probiotics can improve the tissue parameters of the duodenum and play an important role in improving the digestive function of partridge herds.

کلمات کلیدی:

Duodenum, Histology, Partridge, Probiotics

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