

INFLUENCE OF VETERINARY MULTICOMPONENT DRUG "DECAVIT" ON THE INDICES OF THE CALVES ORGANISM

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The knowledge about the cattle organism state is important for creation of new strategies for treatment and nutrition of ruminant animals. This article is useful resource for scientists, working in the areas of nutrition and health of ruminant young animals.

The present study aimed to compare the dynamics of cattle haematological and biochemical parameters under the influence of multicomponent vitamin preparations – Decavit («Vetsyntes», Ukraine) and Introvit (Interchemie Werken «De Adelaar», Netherlands).

Drugs were applied in a dose, duration of use and method recommended by the manufacturers. Blood samples were collected from 30 animals. Laboratory blood tests for evaluation of haematological and biochemical parameters of the calves' organism were carried out before the use and at 30 day after the use of the drugs.

The decreasing of calves' serum total protein, α -, β – and γ - globulins content and activities of enzymes, markers of liver functional state, were observed during the pre- treatment period.

The normalization of hematocrit index and the number of red blood cells in the blood of calves were established after the drug's application. Indicators of phagocytic activity of neutrophils and the index of phagocytosis were sufficiently high in calves before and after the use of drugs and during the experiment did not change. Among the biochemical indicators, there was a tendency towards a decrease in AP activity and a significant decrease in total serum cholesterol. During the experiment the content of total protein and the enzyme activity of ALT and ASAT in calves' serum increased. This testified the restoration of organism stability and the activation of protein synthesis processes. The increasing of γ -globulins relative quantity and decrease of serum α -globulins content were established after the drug's application, which was a sign of increased activity of the animal's humoral immune system.

Our results demonstrated that after treatment with Decavit the indices of calves' blood gradually returned to normal values. The effectiveness of investigated

preparation was confirmed by the recovery of normal physiological state, increasing of animal's body weight daily increments and normalization of majority of calves' blood indices. In addition to the therapeutic effect, the preparation was well tolerated by animals, positively influenced the morpho-functional state of calves and increased their immunity resistance.

Keywords: CALVES, VITAMINS, HEMATOLOGICAL, BIOCHEMICAL PARAMETERS, BLOOD SERUM, PROTEINOGRAM.