THE PLACE OF PROBIOTICS IN VETERINARY MEDICINE

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Abstract: The article provides extensive information about probiotics widely used in veterinary medicine, covering the effects of these probiotics on animals and their performance-enhancing properties.

Keywords: Probiotic, bacteriocins, poultry, immunity, health, pathogens.

Relevance of the topic: Probiotics, which means “proliferative”, are live, non-pathogenic microorganisms that, when administered in adequate amounts, confer a benefit on the health and well-being of the host. Probiotics improve growth, production performance, immunity and digestion, protect the intestinal microflora and enhance egg and meat quality traits in poultry. The correct selection of probiotic strains is essential before their commercialization. This systematic review focuses on the mechanism of action of probiotics and summarizes the potential role of various probiotic supplements in improving production and protecting the health and immunity of poultry flocks. Probiotics are live bacteria, fungi or yeasts that replenish the gastrointestinal flora and help maintain a healthy digestive system, thereby contributing to the growth performance and overall health of the poultry. Probiotics are increasingly being added to poultry feeds as an alternative to antibiotics. This systematic review provides a summary of the use of probiotics in poultry production and the potential role of probiotics in nutrient utilization, growth and laying performance, and gut health of poultry. Mechanism of action of probiotics. Probiotics play an important role in gut microbial health. The mechanisms of action of probiotics mainly include two, namely competitive exclusion and modulation of the immune system. Competitive exclusion of pathogens by probiotics includes: (a) production of inhibitory compounds such as bacteriocins, mucins, defensins, etc., (b) prevention of pathogen adhesion, (c) competition for nutrients, (d) reduction of toxin bioavailability, and € modulation of the host immune system, including enhancement of innate and adaptive immunity.

Probiotics for Poultry: HealthyGut Probiotics for Chickens and Poultry is a broad spectrum blend of carefully selected probiotic bacteria for chickens, ducks and other poultry; Helps promote a healthy digestive system and offers overall digestive support for your bird.



Baktovit: This is a daily probiotic and prebiotic supplement for chicks and adult hens; Contains 9 species of freeze-dried probiotic organisms and prebiotic insulin; Easy to digest and especially great for egg layers.

Digestive Support: Each container of HealthyGut contains 30 servings; sprinkle 1 scoop per 30 chicks (0 to 4 weeks), 20 per adult hen (5 to 15 weeks), or 10 per adult hen (over 16 weeks).

Single Daily Use: Sprinkle probiotic supplements into your bird's food daily; Made from human-grade ingredients tested for quality and purity and manufactured at the U.S. Department of Agriculture's Microbiology Institute for veterinary use.

Veterinary sanitary examination of poultry meat. When conducting a veterinary sanitary examination of poultry meat carcasses, the following are taken into account. Attention is paid to the degree of blood loss of the carcass, pathological anatomical changes in the carcass and internal organs. A well-bleached carcass looks pale yellow, if the carcass is not well-bleached, it is bluish or reddish. A poorly bloodied carcass is sent for examination. Then attention is paid to the cleanliness of the carcass from feathers and down, natural cavities and holes, the color of the crown and changes in the external side of the carcass. If the carcass is thin, there are swellings in the areas of fat accumulation in the muscles or it is dry, and there is bruising of the muscle tissue and the chicken's crown, then the carcass with all its organs is subject to technical disposal. If signs characteristic of infectious diseases are detected in the organs and carcass, then it is sent for laboratory examination.

For long-term storage, poultry meat is frozen in a -18°C chamber. Freezing is stopped when the temperature in the deep layer of the breast reaches -6°C. Such meat is stored in boxes in -12°C chambers for up to 12 months. When poultry is slaughtered in mechanized meat processing plants, its inedible parts (head, claws, intestines, spleen, lungs, blood and wet feathers) are processed to prepare feed. If 24,000 chickens with a live weight of 1.5 kg are slaughtered, the following processing products are obtained from them: 1.2 t of blood, 5.7 t of gizzard and head together, 5.4 t of wet feathers, their total amount is 12.3 t. If these products are fully processed, 3.4 t of valuable meat and bone meal is obtained.

Conclusion: In conclusion, it can be said that probiotics have a positive effect on the poultry organism and greatly help in increasing egg and meat productivity. Regularly adding probiotics to poultry feed stimulates their immune system and increases their resistance to infectious diseases.

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