

# FEATURES OF THE USE OF ASTRAGALUS POLYSACCHARIDES IN THE POULTRY PRODUCTION PERFORMANCE

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**Abstract.** *The our research has been conducted to establish the effect of the use of traditional Chinese medicine drug on the productive characteristics of broiler chickens. The found that due to the use of astragalus drug it is possible to achieve high rates of preservation of the health of poultry and improvement of productive properties without the use of antibiotics.*

**Key words:** *poultry, astragalus, digestive system, weight gain, broiler chickens.*

**Особливості використання полісахаридів астрагалюся у птахівництві**

**Анотація.** *Наші дослідження були проведені з метою встановлення впливу застосування препарату традиційної китайської медицини на продуктивні характеристики курчат-бройлерів. Встановлено, що завдяки застосуванню препарату астрагал можна досягти високих показників збереження здоров'я птиці та поліпшення продуктивних властивостей без використання антибіотиків.*

**Ключові слова:** *домашня птиця, астрагал, травна система, збільшення маси тіла, курчата-бройлери.*

To supply of the meat market the cheap animal protein is impossible without the use of high-quality poultry meat. However, after the EU make illegal to use antibiotics in poultry farming, they were forced to look for alternative supplements for their feeding. That is why all new commercial products appear on the market of feed additives, which already include components of natural origin, in particular preparations from plants, which are physiological and environmentally safe for the body.

The aim of our study was to investigate the effect of use such a medicine drug as astragalus on the digestive system, the rate of weight gain of broiler chickens and also the effect of the drug on the immune system of birds.

According to our research, adding astragalus to the diet can increase the average body weight and average daily gain of broilers, reduce the feed-to-weight ratio, and promote the growth performance of broilers (Zhao Tianzhang et al., 2014). However, it should be noted, there are gender differences in the growth-promoting effect of astragalus on broiler chickens. The growth-promoting effect on hens is better than that of roosters, and astragalus can improve the weight uniformity of broilers (Yue Yongbo et al., 2010). Zhang Yong et al. (2009) found that adding astragalus to broiler diets can reduce the feed-to-weight ratio. Astragalus can increase the antioxidant enzyme activity of the layer body, prevent lutein from being oxidized, increase the deposition of pigment, and improve the color of egg yolk. Astragalus can also reduce the blood lipid content of laying hens, reduce fat deposition, facilitate the normal secretion of eggshell glands, promote the secretion of calcium, and improve eggshell quality (Wang Cuiju et al., 2011).

Astragalus can prevent colds and reduce the incidence by more than 50%. Combined APS and interferon can reduce the incidence of more than 70%. Xie Kaichun et al. (2009) reported that astragalus can induce endogenous interferons in animals to produce antiviral proteins after acting on cells to inhibit viral protein synthesis, thereby producing antiviral infections.

**Conclusions.** In recent years, there have been more and more studies on astragalus, and some of the components and biological effects of astragalus have gradually been recognized by people. As a natural plant feed additive, astragalus can significantly promote the body's non-specific immunity and specific immunity, and improve the body's resistance without causing drug resistance and drug residues. However, there are relatively few systematic studies and related mechanisms on the application of astragalus in animal production.