Bonzachick: A new feed additive decrease mortality rate and increase performance of broiler chickens

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World's growing population needs more protein sources. Broilers are important source of protein, so design and synthesize novel efficient supplements for improving their performance alongside decreasing mortality rate of flocks is necessary. In the present study for the first time we have evaluated the effects of broiler's diet supplementation with Bonzachick which is based on self-assemble method. One-day-old Ross 138 broiler chickens in control and test groups were feed by standard diet. In test group during rearing cycle, diet was supplemented by 120 ppm Bonzachick. The results showed that compared to control group, Bonzachick group mortality rate decreased up to 60%. Using Bonzachick in broiler’s diet showed 10% increase in live and carcass weight. The spleen weight significantly was higher in Bonzachick treated group. The results showed that Bonzachick as an efficient supplement improves metabolism toward performance increase and mortality decrease.

Proteomics and animal nutrition: Differential tolerance to seasonal weight loss in domestic animals

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During domestication, farm animals have adapted to constraints typical of their production systems, such as diseases, parasitosis product demand or seasonal weight loss (SWL). SWL is in fact one of the major constraints to animal production in tropical and Mediterranean regions. Coupled to production studies, the study of the metabolic changes to food restriction, highlighting energy and protein metabolic saving mechanisms, can be a useful approach to identify the physiological pathways relevant in breed selection, allowing the identification of biomarkers that could be used for the selection of breeds and varieties with metabolic pathways more capable of energy and nitrogen retention, thus increasing productivity. Over the last 15 years, we have been conducting studies on several aspects related to weight loss physiology, focusing primarily on small ruminants after using the rabbit as a model. We have conducted a Systems Biology approach aiming to combine proteomics with transcriptomics and more recently metabolomics. Here, we present the results of three major experiments: 1. Experiments with rabbits; 2. Experiments with meat producing sheep and 3. Experiments with dairy goats. In the three cases breeds of animals susceptible to SWL were compared to breeds of animals that show a certain tolerance to SWL. An overview of the major results and conclusions herein obtained will be described as well as major implications on research directions.