CARCASS CHARACTERISTICS AND QUALITATIVE MEAT TRAITS OF BROILER CHICKENS FED SUPER PRE-STARTER DIET

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Abstract. The aim of present study was to assess the effects of animal blood plasma with soy protein concentrate and tryptophane in the super pre-starter diet of broiler chickens. The study was carried out with a 1000 *ROSS 308* cross broiler chickens of 1-42 day old. Broilers were divided into 2 groups of 500 chickens. The birds received the experimental diets from 1 to 8 d of age. The chickens were fed a standard pre-starter diet (Control) and super pre-starter diet (Treatment). In diet of treatment group, the wheat, soy-bean meal and corn were replaced with blood plasma meal (5%), soy-bean concentrate (5%) and tryptophan (0.046%). The birds of control and treatment groups received the same standard diets from 9 to 42 d of age. The parameters of productivity, such as body weight (BW), feed conversion ratio (FCR) and mortality during the experiment were estimated. At the end of the trial the chicks were killed and after laparotomy internal organs and digestive tract were removed and weighed. The length of intestinal tract was measured. Carcass meat characteristics were evaluated. The physical and chemical indices of the meat, such as drop losses, water holding capacity, meat cooking losses, meat tenderness, amount of intramuscular ash, fat, total protein and dry matter (DM) was determined. The results of the study showed, that the final BW by 3% were increased in treatment group ($P<0.05$). The FCR was decreased by 3% during all experimental period, compared with control ($P>0.05$). The intestinal weight with chymus, weight of heart, liver, gizzard and proventriculus were higher for broiler chickens which received a super pre-starter compound feed. Application of super pre-starter diet had a positive effect on carcass characteristics of broiler chickens. The carcass yield was improved by 2%, breast and leg muscle yield by 1%, compared with the control group ($P>0.05$). The drip-loss, water holding capacity, DM, intramuscular fats and ash of breast as well as the leg meat were increased, compared with control group ($P>0.05$). In summary the application of super pre-starter diet for broiler chickens at the age of 1-8 days could improve the BW and decrease the FRC with better carcass characteristics of broiler's meat.

Keywords: super pre-starter feed, carcass characteristics, meat quality, broiler chickens.