

**EFFECT OF EXOGENOUS EMULSIFIER ON GROWTH  
PERFORMANCES, CARCASS TRAITS & MEAT QUALITY  
PARAMETERS OF COMMERCIAL BROILERS REARED  
UNDER OPEN SIDED HOUSING SYSTEM**



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## Abstract

Broiler production is a prominent worldwide agricultural practice that serves as a substantial meat supply. The efficiency of broiler production is crucial, given the rising global demand as a result of the population growth and increasing per capita income. Exogenous emulsifiers are a type of surfactant that have ability to enhance the breakdown and absorption of fats and other nutrients in animal feed. Exogenous emulsifiers promote lipid digestion by a specific method. Emulsifiers decrease the surface tension between fat molecules and aqueous digestive enzymes, resulting in a more effective digestion and absorption of fats. This study investigated the impact of an exogenous emulsifier on the growth, carcass, litter traits, yield, and quality characteristics of broiler chickens. Three hundred of 14<sup>th</sup> -day-old Cobb 500 broilers as hatched basis were arranged randomly via complete block design. There were one treatment and six replicates per each treatment. Each treatment contained 150 birds and each replicate contained 25 birds. Birds were fed with two types of diet, Nelna basal diet as the control diet and Nelna basal diet with 500 g per ton exogenous emulsifier as the treatment diet. Applying standard statistical tests and one way ANOVA at  $p < 0.05$ , the results indicated significant differences in body weight gain (BWG), average feed intake (AFI), feed conversion ratio (FCR), and mortality, dressing yield, meat quality score, and nutrient utilization for the treatment group were recorded. Key findings included a mean weekly body weight gain of 0.286 kg, FCR of 1.266, and a dressing yield of 73.86%. However, some parameters such as abdominal fat, and fecal tests were statistically not significant ( $p > 0.05$ ). Data were analyzed using. Overall, the study suggests that exogenous emulsifiers can positively influence broiler performance and quality, although further research is needed to confirm these trends in non-significant areas.

**Keywords:** Carcass parameters, Exogenous Emulsifier, Growth performances, Lipid digestion, Meat quality parameters.

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