

EFFECT OF EMULSIFIER SUPPLEMENTATION ON BROILER CHICKENS PERFORMANCE

EFEITO DA SUPLEMENTAÇÃO DO EMULSIFICANTE SOBRE O DESEMPENHO DE FRANGOS DE CORTE

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Strategies such as supplementation ingredients that maximize the feed digestion and absorption are indicated for improving broilers performance. The aim of this study was to determine birds performance fed with supplemented diets containing commercial emulsifier-based glycerol monostearate. Three hundred eighty four male broiler chicks (Cobb 500) with a day-old were distributed in a completely randomized design with 6 treatments and 8 replicates with 8 birds each. The treatments were: CP: positive control without energy reduction; CPE: positive control without energy reduction + 120 g MT Emulsifier; CN100: CP with dietary reduction of 100 kcal kg ME; CN50: CP with dietary reduction of 50 kcal kg ME; CNE100: CN100 + 120 g MT of Emulsifier; and CNE50: CN50 + 120 g MT of Emulsifier. The birds were housed in cage for 21 days with water and food *ad libitum*. Performance parameters (feed intake, body weight gain and feed conversion) were measured. Data were analyzed using the Tukey test at 5% significance. When reduced 100 kcal kg ME in the diet without emulsifier there was a worsening of performance, however, with the use of emulsifier, broilers performance remained similar to the positive control diet. A reduction of 50 kcal kg of ME did not affect the measured parameters (Table 1).

Table 1. Broiler performance according to different diets from 1 to 21 days of age

	Feed Intake (g)	Weight Gain (g)	Feed Conversion
CP	1072	858 a	1.25 ab
CPE (120 g MT Emulsifier)	1033	849 a	1.22 a
CN 100 (reduction 100 kcal kg ME)	1050	802 c	1.31 c
CN 50 (reduction 50 kcal kg ME)	1034	830 abc	1.25 ab
CNE 100 (120g MT Emulsifier)	1038	853 a	1.22 a
CNE 50 (120g MT Emulsifier)	1059	839 ab	1.26 b

Averages followed by different letters in the column are significantly different from Tukey test (P<0.05).

Keywords: energy value, glycerol monostearate, poultry.