SUPPLEMENTATION OF EMULSIFIER ON ENERGY DIGESTIBILITY IN BROILER CHICKENS DIETS

SUPLEMENTAÇÃO DE EMULSIFICANTE SOBRE A DIGESTIBILIDADE DE ENERGIA NA DIETA DE FRANGOS DE CORTE

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The lower capacity of fat digestion by birds, especially in the early stages of life can be improved with the use of supplemental emulsifiers, increasing productive efficiency. The aim of this study was to determine the digestibility of energy in diets with or without the inclusion of commercial emulsifier-based glycerol monostearate. Three hundred eight 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 in each experimental unit. 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; CNE50: CN50 + 120 g MT of Emulsifier. The birds were housed in cage for 21 days with water and food *ad libitum*. At 19 days of age, excreta collection was made for three consecutive days. There were determined metabolizable energy and apparent digestibility of ether extract (ADEEC), and data were analyzed using the Tukey test at 5% significance. The use of emulsifier was more effective when reduced 100 kcal kg ME, probably by improving ether extract digestibility and metabolizable energy (Table 1).

Table 1. Metabolizable energy (ME) and apparent digestibility of ether extract (ADEEC)

	ME (kcal kg)	ADEEC (%)
CP	3154 a	81.20 c
CPE (120 g Emulsifier)	3165 a	83.27 ab
CN 100 (reduction 100 kcal kg ME)	3046 b	80.43 c
CN 50 (reduction 50 kcal kg ME)	3117 ab	80.64 c
CNE 100 (120 g MT Emulsifier)	3172 a	84.36 a
CNE 50 (120 g MT Emulsifier)	3148 a	82.70 b
SEM	72	1.19
P%	0.042	0.026

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

Keywords: apparent digestibility, glycerol monostearate, poultry.