





CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## PRODUCTIVE RESPONSE OF DAIRY HEIFERS UNDER PASTURE RECEIVING CONCENTRATE SUPPLEMENTATION

Lorena Ferreira BENFICA\*1, Rafael Monteiro Araújo TEIXEIRA2, Catiúcia Oliveira MIRANDA<sup>1</sup>, Tiago Santos MENEZES<sup>3</sup>, Dawson José Guimarães FARIA<sup>3</sup>, Flávio Moreno SALVADOR<sup>3</sup>, Edilane Aparecida da SILVA<sup>4</sup>

\*corresponding author: lorena.benfica@yahoo.com.br

<sup>1</sup> Instituto de Zootecnia, Sertãozinho, São Paulo, Brasil

<sup>2</sup> Instituto Federal do Sudeste, Rio Pomba, Minas Gerais, Brasil

<sup>3</sup> Instituto Federal do Triângulo Mineiro, Uberaba, Minas Gerais, Brasil

<sup>4</sup> EPAMIG, Uberaba, Minas Gerais, Brasill

The objective of this study was to evaluate the performance of 15 Girolando dairy heifers, with a mean age of 14 months and an initial mean weight of 196.6 kg, kept under Tifton 85 pastures and receiving different types of supplementation between Aug/2014 and Sep/2014. Animals were distributed on randomized blocks, with 3 treatments and 5 replications. Treatments were a mix of mineral supplement with urea addition (control); nitrogenous salt (70% corn, 15% sodium chloride, 9% urea, 5% mineral salt and 1% ammonium sulfate); and protein salt (45% corn, 30% soybean meal, 15% sodium chloride, mineral salt, 4.5% urea and 0.5% ammonium sulfate). Nitrogenous salt supplementation was provided ad libitum and it was used in order to verify daily consumption and used as a reference for the amount to be administered to animals that received protein salt. Supplements were provided daily in a collective salt trough at the picket. Supplement consumption was determined by weighing the quantity supplied and the leftovers. The animals were individually weighed and it were performed body condition score (BCS) scores on the scale of 1 to 5. In the evaluated period it were observed differences (P<0.10) between the performances according to the type of supplementation for the daily average gain (ADG) of live weight of the animals and variation of BCS. It was found that the use of protein salt supplementation showed an ADG of 0.2786 kg day 1, nitrogenous salt of 0.2314 kg day<sup>1</sup> and the urea:mineral mixture of 0.1186 kg day<sup>1</sup>. This result probably occurred due to the better relation between protein and carbohydrate in the diets that used protein and nitrogenous salt. It was also observed that nitrogenous and protein salt supplementation provided maintenance of the body condition score with a variation of -0.0008 and 0.0000 points, respectively, while the body score variation as a function of urea:mineral supplementation was -0.0055 points. This result can be explained by the higher nutrient intake of the diets with salts compared to the urea:mineral mixture. It was concluded that the animals supplemented with nitrogenous and protein salt presented better performance.

**Keywords:** ADG, BCS, girolando, nitrogenous salt, protein salt

Promoção e Realização:













