

EFFECTS OF ADMINISTRATION BUTAFOSFAN AND CYANOCOBALAMINE COMBINATION (CATOSAL B₁₂[®] - BAYER) AFTER CALVING ON METABOLIC AND PRODUCTION PARAMETERS OF DAIRY COWS IN EARLY POSTPARTUM

Rubens Alves Pereira¹, Paula Montagner¹, Pedro Augusto Silva Silveira¹, Viviane Rohrig Rabassa¹, Augusto Schneider¹, Luiz Francisco Machado Pfeifer¹, Francisco Augusto Burkert Del Pino¹, Ivan Bianchi¹, Mario Eduardo Pulga², **Marcio Nunes Corrêa**¹

¹*Núcleo de Pesquisa, Ensino e Extensão em Pecuária, Universidade Federal de Pelotas, Pelotas,* ²*Bayer Animal Health, Bayer Health Care, São Paulo, Brazil*

Objectives: To determine the effects of the injection of Butafosfan and Cyanocobalamine (Catosal B₁₂[®]) on the energetic, proteic, enzymatic and mineral profile and milk production on postpartum dairy cows.

Material and methods: Fifty two holstein-friesian cows were used in the experiment, and were divided into three experimental groups:

- 1) Butafosfan and Cyanocobalamine 10 Group (BC10 Group; n=18) which received 5 injections of 10 mL of 10% Butafosfan and Cyanocobalamine combination, im;
- 2) Butafosfan and Cyanocobalamine 20 Group (BC20 Group; n=18) which received 5 injections of 20 mL of 10% Butafosfan and Cyanocobalamine combination, im and
- 3) Control Group (C Group; n=16), which received 5 injections of 10 mL of saline (NaCl 0,9%), im.

The cows were injected every 5 days from the parturition to 25 days postpartum. Blood samples were collected every 15 days from the third day postpartum to determine of glucose, non-esterified fat acids (NEFA), β-hidroxi butirato (BHB), urea, calcium (Ca), phosphorus (P), magnesium (Mg), aminotransferase aspartate (AST) and gama-glutamyltransferase (GGT). The body condition score (BCS) and milk production were evaluated up to 150 days of lactation.

Results: The NEFA concentrations were higher in C Group (49,64 mmol/L), intermediate in BC10 Group (35,67 mmol/L) and lower in BC20 (18,27 mmol/L; P < 0,0001). The BHB concentrations were higher in C Group than BC10 and BC20 groups (P < 0,05). The cows that received Catosal (BC10 and BC20 Groups) had increased the milk production at the peak of lactation, on average 2,8 L higher compared to C Group (P = 0,06). The average production of the BC20 Group (25,15 L) was significantly higher than C Group (23,01 L; P < 0,05). The serum concentrations of AST, GGT, Ca, P and Mg as well as BCS did not differ between the groups significantly (P > 0,05).

Conclusion: These results demonstrated that the injections of Butafosfan and Cyanocobalamine during early postpartum period in dairy cows reduced NEFA and BHB and positive beneficial effect on the milk production.