

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## SERUM PROFILE OF FEED RESTRICTION CALVES SUPPLEMENTED WITH ADDITIVES

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Supplementation and food restriction can be considered management techniques that contribute to a better production and lower cost within the productive processes. Calves should become functional ruminants at the lowest possible cost and without detriment to future performance. The objective of this study was to evaluate the effect of MetaSmart Dry® (HMBi) and Ruminatus Start® (RS) additives together; with the effect of the lactation system with or without milk restriction on the biochemical seric profile of suckling calves. A group of twenty calves were used, identified with earrings and housed in individual pens for two periods of 28 days. They were allocated randomly in the following treatments: T1 - with restriction in the first period and inclusion of 4 g HMBi daily and without restriction in the second period; T2 - without restriction in the first and second period, with inclusion of 4g HMBi daily; T3 - with restriction in the first period with inclusion of 1.5 g RS and without restriction in the second period; T4 - without restriction in the first and second periods with inclusion of 1.5 g RS daily. In the restricted period the animals were fed with 3 L milk daily and in the unrestricted period they were fed with 6 L of milk daily. The milk supply was divided into two daily treatments, following the quantity specifications established for each treatment and period. The additives were added to the milk for delivery to the animals. All animals received hay and concentrate formulated ad libitum. Blood samples were collected before feeding (16 hours after the previous evening's lactation), via jugular puncture after local antiseptics, in 10 ml vacutainer tubes for analysis of lactate, protein, triglycerides, glucose, alkaline phosphatase, creatinine and urea. The levels of lactate, protein and triglycerides did not present statistical differences between the analyzed groups; remaining in the range of normal according to the reference values. There was interference of food restriction on glucose concentrations in the first period in the restricted group T1 and T3, the values were below the other treatments despite the difficult response to nutritional changes, since it is under homeostatic control. However, the other parameters evaluated did not present any difference among the treatments. No influence of restriction or supplementation on the parameters of lactate, protein, triglycerides, alkaline phosphatase, creatinine and urea was observed, but only alteration of glucose was observed.

**Keywords:** biochemical seric, homeostatic control, milk

Promoção e Realização:



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