EFFECT OF RECOMBINANT BOVINE SOMATOTROPIN (rBST) OF GRAZING TRANSITION DAIRY COWS: MILK YIELD AND COMPOSITION.

DOS SANTOS, Tamiris Alves[1]; **ALEM**, **Bruna da Silva**[1]; **FRANCO, Isabela da Silva**[1]; **PEDRINI, Cibele Almeida**[1]; **SOUZA**, **Beatriz Silva Souza**[1]; **GANDRA**, **Jefferson Rodrigues**[1] (jeffersongandra@ufgd.edu.br);

[1]Curso de zootecnia, Faculdade de Ciências Agrárias, Universidade Federal da Grande Dourados, Rodovia Dourados - Itanhum, km 12, CEP: 79804-970 Dourados MS, Brasil.

The aim of this study was to evaluate the recombinant bovine somatotropin administration in transition dairy cows on milk yield and composition. Twenty four multiparous Holstein cows were randomly assigned to receive 1 of 2 treatments during the pre- and postpartum periods: Control (without application of somatotropin); rBST (equivalent to 250 mg of recombinant bovine somatotropin). The somatotropin (rBST) was applied to the animals every 14 days. The experimental treatments were supplied from 28 d before the expected calving until 28 days in milk. Diets were formulated according to NRC (2001) for pre- and postpartum. Cows were mechanically milked daily at 0430 and 1530 h, and milk yield measurements were made with an automatic milk meter. Milk samples proportional to two daily milking were collected and freshly analyzed weekly for protein, fat and lactose according to by infrared methodology. Data were submitted to analysis of variance and analyzed by repeated measures by PROC MIXED (SAS, 2004). Cows received somatotropin (rBST) showed high ($P<0.05$) milk yield (24.90 *vs* 22.52 kg day^{-1}) and fat content (3.78 vs 3.41 %) compared with control group. Time effect was observed ($P<0.05$) for milk yield (kg day^{-1}), protein and lactose (kg day^{-1}) and fat content (%). However interaction effecet not ($P>0.05$) was observed for any variable measured. Treatment of periparturient dairy cows with recombinant bovine somatotropin (rBST) increases IGF-1 serum concentrations during the periparturient period and has been associated with positive effects on glucose metabolism.Somatotropin positively influenced milk yield and composition of grazing transition dairy cows.

Keywords: cattle. Hormone. Intake.

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