EFFECT OF MONENSIN SUPPLEMENTATION ON PERFORMANCE OF CATTLE IN SEMI-INTENSIVE PRODUCTION SYSTEM

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Introduction: Most Brazilian beef cattle are raised in extensive systems on pastures. Nevertheless, many farmers are supplementing these herds with protein-energy concentrates for improving weight gain (WG) and reducing slaughtering age. Monensin supplementation is commonly used in intensive systems, in order to increase WG and to prevent ruminal acidosis. Little is known about the results of the use of this additive on semi-intensive systems used in Brazilian conditions.

Objective: This study evaluated the effect of monensin supplementation on weight gain, feed conversion and consumption of concentrate on cattle under semi-intensive system.

Material and methods: Thirty yearling crossbred bullocks were used. The animals were weighed and divided into two groups: control and supplemented with monensin (Rumefort - Vallée) at a dose of 200 mg/animal/day for 60 days. The groups were kept on separated paddocks of Brachiaria decumbens pasture and fed concentrate according to 0.6% of their body weights. The animals were weighed at begging of study and at 30th and 60th d. Grass samples were sampled throughout the study to determine crude protein. The results of weight gain, protein content of grass and feed conversion were subjected to analysis of variance and compared by Student’s T test.

Results and discussion: There were no significant differences between the average levels of crude protein in grass paddocks of the two groups during the experiment (11.9 vs 12.1 %). Total weight gain was higher in cattle supplemented with monensin (60.5 vs 57.7 kg; P < 0.05). Daily weight gain had similar pattern (1.008 vs 0.928 kg/day; P < 0.05). Cattle supplemented with monensin also had a better feed conversion than control group during the experiment (1.78 vs 1.91). Monensin did not reduce the DM ingestion. The economic evaluation showed advantage of use monensin, with a gain of 4.9 US$ by animal in the studied period.

Conclusion: Supplementation with monensin at a dose of 200 mg/day, increased weight gain and improved feed conversion, without reducing the intake of concentrate offered. The supplementation of monensin in this particular semi-intensive system was profitable.

Keywords: Bovine, ionophore, weight gain, feed conversion