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Effects of narasin on the pregnancy rate of Nellore cows maintained under grazing and performance of calves - preliminary results

C.J.T. Cardoso[1], A.C.B. Lima[2], D.M. Pereira[2], G.C. Silva[2], K.C. Silva[1], N.A. Anache[1], W.B. Rodrigues[3], H.R. Marques Júnior[4], F.A. Melo-Sterza[2], E. Nogueira[5]

[1]UFMS - Universidade Federal de Mato Grosso do Sul, Campo Grande, MS, Brasil; [2]UEMS - Universidade Estadual de Mato Grosso do Sul, Aquidauana, MS, Brasil; [3]FUNDECT - Fundação de Apoio ao Desenvolvimento do Ensino, Ciência e Tecnologia do Estado de Mato Grosso do Sul; Campo Grande, MS, Brasil; [4]UCDB - Universidade Católica Dom Bosco, Campo Grande, MS, Brasil; [5]EMBRAPA – Pantanal, Corumbá, MS, Brasil.

Ionophores have been used to improve forage conversion in animal protein and to increase nutrient utilization efficiency in cattle. The effects of the mineral mix (MM) with addition of narasin (Zimprova®; Elanco, Brazil) on the performance of calves and pregnancy rate of Nellore cows were evaluated. A total of 362 multiparous cows, with initial weight of 441.65 ± 51.3 kg, ECC of 2.79 ± 0.66 (1-5 scale) and their calves (n = 362, males and females; 200 Nellore and 162 ½ Nellore x ½ Aberdeen Angus). The animals were distributed in the treatments in a 2x2 factorial scheme: two treatments (CONTROL and NARASIN) and two racial groups of calves (Nellore and ½ Angus x ½ Nellore), forming 4 experimental groups: NELCONTR: 100 cows and 100 Nellore calves, CRUZCONTR: 82 cows and 82 crossbreed calves, NELTRAT: 100 cows and 100 Nellore calves, and CRUZTRAT: 80 cows and 80 crossbred calves. All animals received the same diet, differing only from the inclusion of 13 ppm of narasin in MM (as recommended by the manufacturer) for the treated groups. The calves were supplemented in creep-feeding without access to the cow supplement. Supplementation started 17 days before the start of the breeding season (BS) and a 7-day ruminal adaptation period was observed. BS lasted 90 days, consisting of a basic FTAI protocol with 3 managements and 30 days after the transfer with bulls in the proportion 1:25 for 60 days. In FTAI, the cows were inseminated with semen from bulls with known fertility, also distributed in the treatments. Supplementation of cows and calves lasted for six months until weaning (8 months). The data were analyzed by PROC GLIMMIX from SAS. MM consumption for CONTR cows averaged 0.131 kg and 0.125 kg for the NARASIN group. The crossbred calves consumed on average 0.015 kg while the Nellore 0.010 kg. There was no effect (P> 0.05) of narasin on the pregnancy rate in the FTAI (51.1% CONTR vs 51.7% NARASIN), as well as at the end of BS (75.0% CONTR vs 77.2% NARASIN). On the other hand, cow weight gain during the supplementation period was higher (P = 0.004) in the supplemented group (6.63 ± 30.40 kg CONTROL vs 18.85 ± 49.85 kg NARASIN). However, the weight of the calves at 205 days presented interaction (P=0.043), so the effect of the treatment depends on the racial group. The treatment effect was only observed in the crossed group (CRUZTRAT 214.62 ± 25.76a kg vs. CRUZCONTR 198.14 ± 26.40b kg) whereas in Nellore calves there was no treatment effect (NELTRAT 186.92±20.29 kg vs. NELCONTR 180.47 ± 24.62 kg). Similar effect was observed in the mean daily gain in which the treatment effect was only observed in crossbred calves (P=0.034; CRUZTRAT 0.87±0.12a kg vs. CRUZCONTR 0.79±0.12b kg) and (NELTRAT 0.74±0.09 kg vs. NELCONTR 0.71±0.11 kg). It was concluded that supplementation with narasin in MM during BS until weaning promotes an increase in the weight of cows and crossbred calves without affecting the pregnancy rate.