

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

TRACE MINERALS INJECTION AT BIRTH ON HEALTH AND PERFORMANCE OF BOER KIDS IN THE PREWEANING PERIOD

Gumercindo Loriani FRANCO^{*1}, Marcelo VEDOVATTO¹, Ibrahim Miranda CORTADA NETO¹, Camila da Silva PEREIRA¹, Anderson Luiz de Lucca BENTO¹, Rafaela Nunes COELHO¹, Gabriella de Oliveira Dalla MARTHA¹

*corresponding author: gumercindo.franco@ufms.br

¹Universidade Federal de Mato Grosso do Sul, Campo Grande, Mato Grosso do Sul, Brasil

Trace minerals injection (TMI) containing Cu, Se, Mn and Zn, was shown to be efficient in reducing the incidence of diarrhea in newborn calves, but this evaluation was not found in kid goats. Thus aimed to evaluate the TMI at birth on the health and performance of Boer kids in the pre-weaning period. A total of 125 kids (62 males and 63 females) with initial body weight (BW) of 6.61 ± 1.82 kg with 0 to 10 days (d) of life were used. These were confined for 56 d in six pens along with the mother goats and divided by type of parturition, sex, BW and submitted to two treatments: Saline, saline injection (0.1 mL/4.5 kg of BW); TMI, trace minerals injection (0.1 mL/4.5 kg of BW); The TMI had 15 mg of Copper/mL, 60 mg of Zinc/mL, 10 mg of Manganese/mL, and 5 mg of Selenium/mL. The animals were evaluated daily for the presence of diarrhea and weighed on d 0 (application), 28, and 56. The experimental design was randomized blocks and BW and average daily gain (ADG) were analyzed using the MIXED procedure and the mortality and diarrhea rate data by the GLIMMIX procedure of SAS. The statistical models contained as a fixed effect treatment, day (only for the variables BW and ADG), sex, and interactions and as a random variable animal (treatment x sex) and animal (pen). Means were separated by pdiff function. There was no effect of TMI on the mortality rate (4.74% and 8.03% for TMI and Saline respectively, $P > 0.05$) however this reduced the rate of animals with diarrhea in relation to Saline (20.74% and 35.15% for TMI and Saline respectively, $P < 0.05$) and there was no treatment effect or treatment x day for BW (final BW was 12.34 and 12.15 kg for TMI and Saline respectively, $P > 0.05$) and ADG (0.11 and 0.10 kg/day for TMI and Saline respectively, $P > 0.05$). Thus, TMI in newborn goats reduces the incidence of diarrhea and does not affect mortality rate and performance.

Keywords: ADG, diarrhea, goats, mortality

Acknowledgments: We would like to thank the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) for the scholarship provided to the first author, to the Fundação de Apoio ao Desenvolvimento do Ensino, Ciência e Tecnologia do Estado de Mato Grosso do Sul (FUNDECT; 116/2016) for sponsoring the study, the company Multimin (Fort Collins, CO, USA) for the donation of the TMI and Fazenda Água Boa (Bandeirantes, MS, Brazil) for the possibility of execution of the experiment.

Promoção e Realização:



Apoio Institucional:



Organização:

