PSX-B-17 Appeasing substance application at weaning enhanced growth and temperament of bos indicusinfluenced weaned calves in grazing system. Douglas G. Viera¹, Juliana Ranches², Bruno I. Cappellozza³, Henrique J. Fernandes⁴, Marcella D'Oliveira¹, Raizza Rocha¹, Luan Valério¹, Uriel Curcio¹, Gumerci ndo L. Franco¹, ¹Faculdade de Medicina Veterinária e Zootecnia, Universidade Federal de Mato Grosso do Sul, ²Oregon State University, ³Nutricorp, ⁴Universidade Estadual de Mato Grosso do Sul

The objective of this study was to evaluate the effects of a synthetic analogue of the bovine appeasing pheromone (i.e. bovine appeasing substance; BAS) on growth and temperament of weaned calves grazing Capim-Marandú (Urochloa brizantha cv Marandú). At weaning (d 0), 86 calves (47 steers and 39 heifers; Aberdeen Angus ' Nelore; 8 ± 1 mo) were stratified by body weight (197.9 \pm 24.9 kg) and randomly assigned to receive a single dose of BAS (n = 43; SecureCattle; Nutricorp, Araras, SP, Brazil) or saline (CON; n = 43; saline 0.9% NaCl). Treatments (5 ml) were topically applied to the nuchal skin area of each animal on d0. Body weight was collected on d 0, 8, 15, 51 and 100. Chute score (1 to 5; 1 = calm, no movement; 5 = violentand continuous struggling) and chute entrance and exit scores (1 to 3; 1 =slow; 3 =fast) were collected on d 3, 8, 15, 51 and 100. Scores were averaged across 3 trained technicians. Data were analyzed using the MIXED procedure of SAS. Calves assigned to BAS treatment had greater (P < 0.01) average daily gain (ADG) from d 8 to 15 (0.158 and -0.284 kg/d \pm 0.07). Calves assigned to BAS treatment tended (P = 0.10) to have lower chute entrance score on d 8 and 51 and had lower (P = 0.02) chute exit score on d 8 than calves assigned to CON treatment. Additionally, calves assigned to BAS treatment tended (P = 0.07) to have lower chute score on d 8 when compared to calves assigned to CON treatment. The application of BAS at weaning improved calf ADG and improved calf temperament as observed by chute score and chute entrance and exit scores, suggesting that BAS application has calming effects.

Key words: chute score, stress, welfare, exit score

PSX-B-19 Behaviour of cows while being tested for methane emissions using the greenfeed system. Christine F. Baes¹, Gail Ritchie², Nienke van Staaveren², ¹Centre for Genetic Improvement of Livestock, University of Guelph; Institute of Genetics, Vetsuisse Faculty, University of Bern, Bern, Switzerland, ²Centre for Genetic Improvement of Livestock, Department of Animal Biosciences, University of Guelph

Increased focus on sustainability is driving a need for environmental efficiency traits in dairy cattle breeding. Breeding for reduced emission of methane, an inevitable product of fermentation in ruminants, is increasingly being explored. Methods to measure methane emissions vary but can be impacted by cow behaviour. As part of an on-going project to develop genomic tools for breeding resilient dairy cows, we explored changes in cow behaviour over time during methane emission measurements. First lactation heifers (n = 49)were tested in tie-stall housing at a research herd in Ontario, Canada. Animals were tested over 5 consecutive days at 08:00h, 12:00h, and 16:00h each day for a 10-min period using the GreenFeed system (C-Lock Inc., Rapid City, SD, USA). The frequency of movement (body shifts and leg lifts) and the number of seconds the cow removed her head from the machine were recorded. The effect of day on the average frequency of movements or time the cow's head was outside of the machine was assessed using a repeated measures model. In general, cows moved their legs the most on day 1 of testing (76 \pm 5.0 movements per 10 min), after which it numerically decreased (e.g., day 5: 68 ± 5.0 movements per 10 min, P = 0.1110). A similar effect was observed for seconds the cow had her head out of the machine (P = 0.0650). Cows spent an average of 39 ± 5.7 sec with their head outside of the machine on day 1 versus 25 ± 3.6 sec on day 5 (P = 0.0499). These preliminary results suggest that cows adapt to the testing conditions; however, changes in their behaviour were minor and do not intervene with recording of methane emissions using the GreenFeed system.

Key words: behavior; cow; methane