Cross-bred steers (n = 397; initial BW = 247 ± 21 kg) from a single ranch were used to determine the effects of supplementing a Bacillus subtilus direct-fed microbial (DFM; CLOSTAT, Kemin Animal Health, Des Moines, IA) at a rate of 13 g \cdot steer-1 \cdot d-1 on feedlot performance, carcass characteristics, and clinical health during receiving and finishing. Steers were randomly assigned to pens by BW and pens were pairwise assigned 1 of 2 experimental treatments, control (CON) or DFM. Steers were housed in 12.2 x 30.5 m soil surfaced pens, and pen served as the experimental unit. There were no differences during the receiving period for overall BW (P = 0.97), ADG (P = 0.91), DMI (P = 0.77), or G: F (P = 0.79). There was a tendency (P = 0.09) for the DFM fed steers to be 14% more efficient from d 0 to 14 of the receiving period. There were also no differences in final BW (P = 0.40) or overall DMI (P = 0.46) during finishing, but there was a difference in ADG (P = 0.03) from d 29 to 56 of the finishing period where steers supplemented with DFM had greater ADG. The DFM supplemented steers also tended to be more efficient overall during finishing and for the entirety of the experiment (P = 0.07 and P = 0.08, respectively). There were no differences in carcass characteristics ($P \ge 0.31$) between the experimental treatments. While limited research has been conducted examining the effects of Bacillus subtilis on feedlot performance, carcass characteristics, and the clinical health of growing and finishing steers, the results of this experiment suggest that the supplementation of a strain Bacillus subtilis at a rate of 13 g \cdot steer-1 \cdot d⁻¹ may improve feed efficiency Key Words: Bacillus subtilis, direct fed microbial,

feedlot performance

123 Effect of a hydrolyzed yeast product on cow behavior, body eeight, body condition score, and hair coat score in cows grazing pastures containing endophyte-infected tall fescue. Patricia L. Harrelson¹,
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The objective of this study was to determine if the addition of a hydrolyzed yeast product would alleviate the symptoms of fescue toxicosis in beef cattle. Thirtyeight Angus cow-calf pairs were stratified by cow age and body weight then randomly allotted to one of two treatments; control mineral (CON) or hydrolyzed yeast mineral (HYM). Cattle in both groups were allowed access to mineral for 126 d while they grazed the same eight pastures (1.21 ha each) in a rotational pattern. Mineral was provided at a target rate of 113.4 g·hd-1·d⁻¹ every 28 d. Each pasture was grazed by cattle groups for 7 d. Mixed grass pastures containing tall fescue were utilized and evaluated for endophyte level prior to the start of the project. Due to pasture endophyte level variability (44%-73% endophyte), both groups of cattle rotationally grazed each pasture at least 2 times starting in June. Prior to entering a new pasture weekly, cows were weighed and assigned a BCS and hair coat score (HC) by two independent, trained personnel. Cow behavior was measured every 15-min within a 2-h block weekly. Percentage of cows active or inactive, outside or inside was recorded. Data were analyzed using the MIXED procedure of SAS. Cow BW change was unaffected by treatment (P > 0.23). Cow BCS significantly increased in HYM vs. CON cows (0.4 vs. 0.1; P = 0.02; SEM = 0.1) through the 126 d project. No treatment effect was observed on HC (P > 0.19). Cow behavior was impacted by treatment, as HYM cows spent more time outside compared to CON cows (P < 0.01). Results of this trial suggest that HYM cows may have experienced less heat stress as a result of fescue toxicosis as they were willing to spend more time outside and increased BCS.

Key Words: beef cattle, fescue toxicosis, yeast

118 Administering a synthetic appeasing pheromone to Bos indicus-influenced beef cattle at weaning and feedlot entry. Alice Brandão¹, Reinaldo F. Cooke¹, Kelsey Schubach¹, Thiago Schumaher², Osvaldo Souza², Thais Castro³, Bruno Cappellozza³, ¹Texas A&M University - Department of Animal Science, São Paulo State University (UNESP), School of Veterinary Medicine and Animal Science, ³Nutricorp.

Synthetic appeasing pheromone (SAP) is expected to have a calming effect in cattle experiencing stressful situations, including weaning and feedlot arrival. In Exp. 1, 186 Bos indicus-influenced calves (73 heifers, 133 bulls) were weaned at 211 ± 1 d of age (d 0). Upon weaning, calves were ranked by sex and body weight (BW), and assigned to receive SAP (Nutricorp, Araras, SP, Brazil; n = 94) or water (CON; n = 92). Treatments (5 mL) were topically applied to the forehead of each animal. Calf BW was recorded on d 15 and 45. Calves that received SAP had greater (P < 0.01) average daily again (ADG) from d 0 to 15, and BW on d 15 compared with CON (0.94 vs. 0.73 kg/d and 249 vs. 246 kg; respectively). Calf ADG from d 15 to 45 was similar (P = 0.97) between treatments. Overall ADG and BW on d 45 were also greater in SAP vs. CON (0.36 vs. 0.29 kg/d and 251 vs. 248 kg;