

## **Growth of Periruminant Holstein Bull Calves Fed a Fermentation Extract of *Aspergillus oryzae***

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The objective was to determine if dietary inclusion of an extract of *Aspergillus oryzae*, used as a direct fed microbial, would improve growth of Holstein bull calves from birth thru 1wk post weaning. Calves (n=52) were randomly assigned to a slaughter age, 4 wk (n = 16) or 8 wk (n = 36) and treatment, control (CON; n = 27) or direct fed microbial (DFM; n = 25). Calves were housed and fed individually. Calves assigned to DFM were fed 2 g of DFM daily. Liquid DFM was delivered in milk replacer for the first 4 wk of the trial; solid DFM was top-dressed on texturized grain thereafter. Calves were fed milk replacer twice daily and were weaned upon consumption of 0.91 kg of grain for 3 consecutive days or on d 45 of the study. Calves had ad libitum access to grain and water. Feed intake was recorded daily. Body weight (BW) was recorded weekly. There was no effect of treatment on BW; 8 wk BW was  $74.5 \pm 1.9$  kg for CON and  $74.6 \pm 1.9$  kg for DFM. Total dry matter intake per calf did not differ: from 0 thru 4wk ( $19.48 \pm 0.67$  kg), 5 thru 8wk ( $39.44 \pm 2.05$  kg), or for the whole trial ( $58.70 \pm 3.30$  kg). Lastly, the gain to feed ratio did not differ by treatment for the whole trial ( $0.56 \pm 0.04$ ). Here, dietary inclusion (2g/d) of an extract of *A. oryzae* did not result in improved calf growth when supplemented animals were compared to cohorts not fed the direct fed microbial. It is possible that the dose used here was not high enough to elicit treatment effects. Given that effects have been noted in other species, a follow-up dose titration study with similar diets as used here seems warranted.

**Key words:** dairy calf, direct fed microbial, growth, nutrition