

Effect of feeding a culture of *A. oryzae* on rumen and total tract digestion in dairy cows. R. Gomez*, J.T. Huber, G.E. Higginbotham, R. Wanderley, Univ. of AZ, Tucson.

Two digestion trials with Holstein cows were conducted. In Trial 1, 20 lactating cows were fed the normal herd ration plus 20 g/d of Cr_2O_3 as marker. Half the cows received 3 g of an *A. oryzae* culture (AmaFerm) daily and the others served as controls. After 7 d receiving marker, fecal grab samples were collected twice daily for 3 d to estimate ration digestibility. In Trial 2, two cows fitted with rumen and duodenal canulas were fed a ration of 50% forage and 50% concentrate with or without AmaFerm (3 g/d) in a crossover design. Cr_2O_3 was also used as marker. Periods were 10 d, 7 d adjustment and 3 d collection. Samples were analyzed to estimate digestibility in the rumen and total tract. In both trials a higher feed intake was recorded for cows fed AmaFerm (20.2 vs 18.9 kg for Trial 1 and 12.6 vs 10.9 for Trial 2), but percent digestibility of dry matter and cell wall constituents was similar. Rumen pH of cows fed AmaFerm was lower than controls, but acidic on both diets (5.55 vs 5.65). Rumen cellulose digestion and nitrogen output were higher with AmaFerm (33.2 vs 28.3%, 91.2 vs 84.2%). These data suggest a change in the rumen fermentation due to feeding AmaFerm. Partially supported by BioZyme Corporation, St. Louis, MO.