Effects of Induced Rumen Acidosis on the Fecal Shedding of *Escherichia coli* in Lactating Dairy Cattle

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Rumen acidosis was induced in late lactation dairy cows to measure the effects in manure microbial output. Rumen acidosis was induced in 5, late-lactation Holstein cows by a diet moderately high in starch. Five other cows were fed a control diet. Fecal samples were collected five times during the 10 d trial to enumerate Gram-negative bacteria, coliform, and *Klebsiella* species in manure. The pH also was measured in each fecal sample. Diets were assayed for nutritional composition throughout the trial. Rumen acidosis, as confirmed by milk fatty acid profiles, did not increase the fecal shedding of *E. coli* or other organisms enumerated. Although no treatment effects on the fecal bacteria counts were measured, daily differences in fecal bacteria counts and pH were observed. Milk production increased 2.2 kg/d in cows fed the acidosis inducing diet compared to cows fed the control diet. Cows fed the acidosis inducing diet had increased milk concentrations of the fatty acid *trans*-10, *cis*-12 conjugated linoleic acid compared with milk from control cows. The effect of diet on fecal shedding of *E. coli* was not different by treatment. Nutritional changes in the dairy herd can affect pathogen exposure; however, this was not observed.