Short Communication: Effect of Subacute Ruminal Acidosis on In Situ Fiber Digestion in Lactating Dairy Cows

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ABSTRACT Subacute ruminal acidosis (SARA) was induced by replacing 25% of the total mixed ration intake [dry matter (DM) basis] with pellets consisting of 50% wheat and 50% barley. This reduced dietary forage content (DM basis) from 39.7 to 29.8% and increased the dietary concentrate content from 60.3 to 70.2%. Induction of SARA reduced the 24- and 48-h in situ neutral detergent fiber (NDF) degradabilities of grass hay numerically from 31.5% to 24.6% \((P = 0.29)\) and from 51.3% to 36.9% \((P < 0.05)\), respectively. The 24- and 48-h in situ NDF degradabilities of legume hay were reduced from 35.3 to 26.3% \((P < 0.05)\) and from 49.0 to 35.8% \((P < 0.05)\), respectively. The 24- and 48-h in situ NDF degradabilities of corn silage were reduced from 44.0 to 37.2% \((P < 0.05)\) and from 56.1 to 44.8% \((P < 0.05)\), respectively. This study suggests that induction of SARA by excess feeding of wheat/barley pellets reduces the rumen digestion of NDF from grass hay, legume hay, and corn silage.

(Key words: subacute ruminal acidosis, fiber digestibility, dairy cows)

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