Effect of Inhibitor Concentration and End-Product Accumulation on in Vitro Estimates of Ruminal Protein Degradation. By Broderick et al., page 1360. Amount of protein escaping the rumen, often called "bypass protein," varies greatly among feeds, and there are no reliable in vitro methods for its determination. In the inhibitor in vitro method, ruminal microbes are incubated with 2 metabolic inhibitors and rates of protein degradation are estimated from appearance of ammonia and total AA. Although the technique has proven to be reliable, one inhibitor is potentially toxic to users of the method. Replacing this inhibitor with as much as 10 times more of the second inhibitor did not result in useful estimates of protein degradation. Differences in degradability observed between replicate incubations and different locations may be related to differences in rate of peptide catabolism. Casein degradation followed simple, first-order kinetics but degradation of soybean meals was best explained using 2 protein fractions degraded at 2 different rates.