Extent of Methionine Limitation in Peak-, Early-, and Mid-Lactation Dairy Cows. By Socha et al., page 1996. When corn and soybean-based diets for lactating dairy cattle were formulated to provide more than adequate amounts of lysine, the methionine content of duodenal digesta for maximum milk protein synthesis exceeded 2.7% of total amino acids for early-lactation cows and 2.4% of total amino acids for peak-lactation cows. Balancing diets of lactating cows to provide these levels of methionine, producers can increase milk protein production while improving dietary nitrogen utilization. Improved dietary protein utilization reduces the potential for N pollution.