

Pre-Symposium
Improving Feed Efficiency in Dairy Cattle
Bill Braman, PhD, PAS
Chr. Hansen, Inc.

On behalf of Chr. Hansen and our employees, we welcome you to the Pre-Conference of the 4-State Dairy Nutrition Conference. Chr. Hansen is a global supplier of bioscience based ingredients to the food, health, pharmaceutical and agricultural industries. We are pleased to sponsor this pre-conference focused around feed efficiency for dairy cows.

Feed efficiency has been a major metric used in measuring production and profitability of poultry, swine, and feedlot cattle. Recently, feed efficiency has become a more important measurement in dairy production as feed prices increased from historical levels and with more focus on environmental implications with limited land bases. Dr. Mike Hutjens has spoken to this point for many years at this conference as well as other venues. Dr. Hutjens has used an optimal range of 1.4-1.8 lbs. FCM/lb. of dry matter intake as optimal. However, there are many other metrics which can be used that may more closely relate to a specific desired outcome.

Gross feed efficiency is some ratio of feed required to produce a certain amount of milk. How we define milk outputs and feed inputs leads to many different definitions of feed efficiency. Milk output can be defined in terms of yield (milk, fat, and/or protein), cheese yield, milk energy, and milk dollars. Feed inputs can be defined as gross, digestible, metabolizable, or net energy; dollars; and other methods. Our panel of consultants will explore these various metrics as well as other non-traditional measurements.

Measuring feed efficiency in an economic form is challenging and not constant. It involves fluctuating market conditions, biological issues related to feed production, and manipulating cattle biology and herd structure.

In this conference we will explore and identify biological tools to improve feed digestibility, animal performance and improve feed quality and preservation. Feed additives and silage inoculants are tools to increase dairy feed efficiency. As earlier mentioned, our panel of consultants will provide insight into putting feed efficiency to work on the dairy operation. Criteria such as collecting and measuring data, interpreting data, and implementation of measures to improve feed efficiency are addressed.

Changes in feed efficiency should be monitored to evaluate the impact of feeding and management changes on a dairy operation. However, comparisons between herds should be done very carefully.

On behalf of Chr. Hansen we thank you for participating in these pre-conference presentations. The use of dairy feed efficiency as a management decision tool will continue to evolve as a key metric for modern dairy production.