PRO-LAK® RESEARCH

Research began in 1986 with a grant from H.J. Baker to Cornell University. This early work established the U.I.P. and D.I.P fractions of the proteins considered for use in PRO-LAK. This study was used as the data base in an amino acid model to generate an optimum formula.

During 1990 and 1991, the effectiveness of PRO-LAK was verified in commercial field studies. At Mississippi State University milk production increased 3 to 6 pounds without effecting milk fat or protein.

Further confirmation was established in 1993 in extensive field trials involving 5 universities, 35 herds and 7,289 cows. Participating were the Universities of Pennsylvania, Florida, Wisconsin, Arizona, and Virginia Tech. The regional diversification represented a broad spectrum of the U.S. Dairy Industry and provided the opportunity to observe the PRO-LAK response under various herd feeding and management situations.

A positive PRO-LAK response, averaging 5.82 pounds of milk was generated in early lactation cows. The overall response across 7,289 cows was 2.68 pounds more milk. Our university trials demonstrated that early lactation responses to PRO-LAK are significantly greater than average herd responses. This supports the need to introduce PRO-LAK immediately before calving or shortly thereafter.

The following articles appear in the Journal of Dairy Science and provide additional information on Pro-Lak. Please click on the link below to view a PDF version of the article.

Varying Protein and Starch in the Diet of Dairy Cows. I. Effects on Ruminal Fermentation and Intestinal Supply of Nutrients
2005 J. Dairy Sci. 88: 2537-2555

Varying Protein and Starch in the Diet of Dairy Cows. II. Effects on Performance and Nitrogen Utilization for Milk Production
2005 J. Dairy Sci. 88: 2556-2570

Performance of Lactating Dairy Cows Fed Different Sources and Amounts of Crude Protein
2004 J. Dairy Sci. 87 Supp 1: 161
Intake and Production by Holstein Cows Fed Different Amounts and Sources of Supplemental Protein Prepartum and Postpartum
2001 J. Dairy Sci. 84 Supp 1: 364

Effect of Prepartum Dietary Protein Level on Performance of Primigravid and Multiparous Holstein Dairy Cows
2001 J. Dairy Sci. 84: 213-224

Effects of Inclusion of a Blended Protein Product in 35 Dairy Herds in Five Regions of the Country
2000 J. Dairy Sci. 83: 1813-1828

A Method to Analyze Production Responses in Dairy Herds
2000 J. Dairy Sci. 83: 1530-1542

The Effect of Protein and Energy Supplement Added to a Basal Diet Fed in 2 or 7 Meals Daily on Milk Yield and Urinary Excretion of Purine Derivatives
2000 J. Dairy Sci. 83 supp 1: 268

Response of Lactating Dairy Cows to Steam-Flaked Sorghum, Steam-Flaked Corn, or Steam-Rolled Corn and Protein Sources of Differing Degradability
1999 J. Dairy Sci. 82: 728-737

Metabolic and Yield Responses of Multiparous Holstein Cows to Prepartum Rumen-Undegradable Protein
1999 J. Dairy Sci. 82: 527-536

Performance and Nutrient Digestibility by Dairy Cows Treated with Bovine Somatotropin and Fed Diets with Steam-Flaked Sorghum or Steam-Rolled Corn During Early Lactation
1999 J. Dairy Sci. 82: 404-411