



Tech-Line

A Swine Technical Update May 2006



Progress through Technology

Each year, Hubbard nutritionists conduct research trials on over 40,000 pigs in commercial production settings. While this research provides valuable insight into various ingredients, nutrient levels and feeding programs, the real value of Hubbard's research and development program is if it can help our producers economically. Three areas Hubbard Feeds has devoted a great deal of research are lysine and crystalline amino acids, phytase and Dried Distillers Grains with Solubles (DDGS) This Tech-Line will review the progress of this research and the economic impact it has had for our customers.

The Hubbard Swine Nutrition Team compared six different diets representing the progression of Hubbard Feeds Technology through the last 10 years. Each step in the progression provided an opportunity for the swine producer to save money. The six diets and their costs are listed below. For a base comparison, a corn soybean meal diet with no added lysine is also listed. All these diets are balanced with added fat to 1525 kcal ME /lb. For this example corn was \$2.00/bushel, 48% soybean meal was \$180/ton and DDGS was \$85/ton.

Base Diet	Corn/Soy diet with no added crystalline lysine	Cost: \$112.93
Ration 1	Addition of 3 lbs/ton crystalline L-Lysine HCl	Cost: \$109.41
Ration 2	Ration 1 plus phytase at basic levels (500 FTU/KG)	Cost: \$106.71
Ration 3	Ration 2 plus high crystalline amino acids (L-Lysine HCl, DL-Methionine and L-Threonine)	Cost: \$106.13
Ration 4	Ration 3 plus high phytase/high amino acid diets (Lean Value 4-70 & Lean Value 5-60)	Cost: \$105.61
Ration 5	Ration 4 plus use of 10% standard quality DDGS	Cost: \$104.41
Ration 6	Ration 5 plus use of 10% high quality DDGS balanced on amino acid availability	Cost: \$103.48

Implementing these technologies saves the swine producer \$5.93 per complete ton of feed or about \$2.00 per pig. Any producer that has not adopted these technologies is reducing their profitability.

The area of phytase and amino acids has generated much interest in swine nutrition, for good reason as you can see above. The use of these two nutrients reduces the amount of phosphorus and nitrogen in the manure, which can be beneficial environmentally. However, as the use of swine manure as a replacement for commercial fertilizer increases, the expectations of what nutrients it should provide often vary between the agronomist and the swine nutritionist.

Tools such as Excel spreadsheets that evaluate the feed cost savings of using phytase verses the cost of additional commercial fertilizer are available from your Hubbard Technical Consultant. Using these types of tools can help everyone's decision which program provides the most economic benefit. As the swine industry implements new technology, Hubbard Feeds will continue its commitment to developing products and programs that provide an economic return for its customers.