

Feed Cost-Control Recommendations

Feed contributes 60 to 70% to total swine production costs and typically is the largest variable separating the lowest-cost producers from higher-cost producers. The list below highlights items to consider for controlling feed costs while implementing the most cost-effective nutritional program.

Corn Particle Size for Meal Feed. Correct any particle size and variation problems. The particle size of corn fed to pigs should average 600-700 microns. University studies show that for every 100-micron decrease in particle size, a 1.3% improvement in feed efficiency is achieved. For example, reducing corn particle size from 1000 to 700 microns will improve feed efficiency by 4%. This would save approximately \$4/ton of complete feed or over \$1/pig assuming corn costs \$2/bu.

Feed Wastage. Reduce feed wastage by ensuring optimal feeder adjustment. Pigs should have free access to feed at all times; however, feeders should be adjusted so that at least 40-50% of the pan is visible. With an average grow-finish feed cost of \$110/ton (50 to 250 lb pigs), a producer saves \$0.33/pig for each 1% reduction in feed wastage. Thus, a 5% reduction in feed wastage would save \$1.65/pig.

Ingredient Nutrient Levels. Take full advantage of nutrient content of major ingredients, such as soybean meal (SBM) and corn. A 0.5% increase in protein content of SBM (48 vs. 47.5) reduces the inclusion of SBM by 5 lb/ton of complete feed. With SBM at \$175/ton and corn at \$2/bu, this would reduce complete feed cost by \$0.26/ton. Likewise, feeding corn with higher protein content reduces SBM inclusion. With 0.5% higher protein content of corn, SBM (48%) is reduced 5 lb/ton of complete feed. This lowers complete feed cost an additional \$0.26/ton.

L-Lysine. Use of synthetic lysine is cost-effective with today's ingredient prices. L-lysine is used to lower SBM levels and reduce diet cost. However, excessive use of L-lysine without considering the balance of other essential amino acids in the diet will actually increase feed cost per pig due to amino acid imbalances and reduced pig performance. Overuse of L-lysine reduces dietary protein so much that the pigs' need for other amino acids cannot be met, and the extra L-lysine is wasted. With today's ingredient prices, using L-lysine correctly in grow-finish diets saves more than \$2/ton of complete feed. Akey formulations contain the proper amount of synthetic amino acids to keep diet costs as low as possible while maintaining pig performance.

Dietary Lysine Level. Reducing dietary protein levels by decreasing SBM levels below what is required for optimal lean growth will reduce pig growth rate and increase F/G. Reducing SBM (48%) inclusion by 50 lb/ton will reduce dietary lysine level 0.064 percentage units. Lowering dietary lysine by 0.06% below the optimum level will reduce ADG by 6-8% and increase F/G by 5-10%. For pigs from 50 to 250 lb, this would extend time to market by 7-10 days and increase

feed per pig by 40-60 lb. Although the average feed cost would be reduced \$2.59/ton, feed cost per pig would increase \$1.35-\$2.45. If carcass premiums are paid for lean yield, be cautious of reducing dietary lysine since carcass fat will likely increase with reductions in percentage lean.

Alternative Ingredients. Explore availability of alternative ingredients for swine diets such as wheat midds, barley, bakery by-products, meat and bone meal, etc. Use of alternative ingredients require diets to be reformulated by Akey. Nutrient information needed on alternative ingredients to accurately prepare diets includes protein, fat, calcium and phosphorus, and depending on the ingredient, salt or sodium content. Be aware that many alternative ingredients are variable in nutrient content, which can result in variable animal performance.

Dietary Energy. Removing supplemental fat from swine diets lowers feed cost per ton. With fat at \$0.15/lb, addition of 100 lb/ton of fat increases diet cost by \$14.50/ton, including adjustments in SBM levels. With corn at \$2/bu, fat should cost less than \$0.125/lb to be cost effective. High dietary energy levels improve ADG and lower F/G. Fat price needs to be less than 3.5 times the price of corn to be a more economical source of energy than corn.

Phase Feeding. Feeding more diets from 50 lb to market can help reduce feed cost per pig while maintaining the same growth performance. Moving from two to three diets during the finishing period reduces feed cost by \$1.10-\$1.20/pig, with an additional \$0.80 feed cost savings by using four diets.

Feed Budgeting. Follow feed budgets closely to avoid feeding more of any phase than desired. Overfeeding more expensive diets will not result in better pig performance and may actually reduce growth rate. Conversely, underfeeding the amount budgeted by 10% can also have an adverse effect on growth performance, much like lowering the dietary lysine level as mentioned previously. Following a properly designed feed budget is important in both the nursery and grow-finish stages of production.

Feed Additives. Make sure all feed additives are cost-justified. If a growth promotant has a claim for improving F/G by a certain amount, calculate the percentage based on the average cost of the grow-finish diets. This percentage represents the maximum amount per ton that can be paid for the growth promotant. For example, if the grow-finish diets average \$112/ton, a growth promotant that improves F/G 3% from 50-250 lb (i.e., 3.10 to 2.95) should cost less than \$3.36/ton. Consult with your veterinarian for recommendations on feed medications for control or treatment of disease challenges.

Diet Cost Comparisons. Do not be misled by competitive feeding programs that make unfair or unrealistic comparisons. Growth performance projections should be realistic based on your production records and goals. Nutrient levels for major ingredients (SBM, corn, fat, etc.) must be the same between programs for an accurate comparison of nutritional levels and feed costs.

Follow the above recommendations to help control feed costs. Focus on being as efficient as possible to control costs in all aspects of production.

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