

# Managing Pig Feed Costs

Peter J. Lammers and Mark S. Honeyman  
Department of Animal Science, Iowa State University

The rising price of corn has created increased interest in alternative feedstuffs by livestock producers, and niche market pork producers are no exception. Unfortunately there is currently no single replacement for corn in Midwest pig diets, even at today's market prices. Thus managing factors that you can more easily control is critical for continued success in pork production. This handout details practical strategies for managing feed costs.

**The following eight strategies for managing feed costs include: environmental conditions, feeder adjustment, limit feeding, feed particle size, matching diets with pig's stage of growth, strategic culling, marketing decisions, and homegrown feedstuffs.**

- 1) **Environmental conditions:** Pig performance is affected by the environment the animal faces. Sick pigs do not perform as well as healthy pigs, thus maintaining pig health is critical.
  - ◆ Minimize drafts and provide plenty of bedding.
  - ◆ Clean and disinfect regularly; allow time between groups of pigs.
  - ◆ Supply adequate, clean drinking water.
  - ◆ Control internal parasites.
  - ◆ Practice segregation and batch rearing.
  - ◆ Avoid overstocking—stress.
- 2) **Adjust feeders:** Up to 10% feed waste is almost undetectable in a production setting. Feeders should be set so that daily opening is needed for feed to flow freely.
  - ◆ Open feeder just enough to start feed flow.
  - ◆ Use rod or hand to pull feed out into pan.
  - ◆ Cover 1/3 and ONLY 1/3 of feeding pan with feed.
  - ◆ Check and adjust feeders twice daily.
  - ◆ Pigs prefer fresh feed, stale feed leads to waste.
- 3) **Limit feeding:** Limit fed pigs have improved feed efficiency (feed/gain), although this practice may be difficult with large groups.
  - ◆ Limit feeding requires feeding pigs several times daily.
  - ◆ Pig uniformity may decline.
  - ◆ Growth rate may slow.
- 4) **Feed particle size:** Digestive enzymes work on the surface area of particles.
  - ◆ Medium grind: 700 microns is the target.
  - ◆ 700 microns  $\approx$  0.03 inches (1/4 inch hammer mill)
  - ◆ < 650 microns causes digestive upset and bridging in feeders.
  - ◆ > 750 microns is insufficient surface area for digestive enzymes to work optimally.
  - ◆ Three sieve analysis of feed particle size is recommended, see [www.asi.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=2771](http://www.asi.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=2771) for the procedure and list of equipment.

- 5) **Diets matched with pigs:** Size of pig affects nutritional need. A large variation in pig size within a pen leads to small pigs being underfed or big pigs being overfed.
  - ◆ Growing pigs: Critical measure of feed cost is feed cost/pound of gain or feed cost/pig sold.
  - ◆ Sow feeding: Gestation sows should be limit fed.
  - ◆ Overfeeding sows increases feed costs while lowering conception rates and increasing piglet mortality and risk to herdsman and equipment.
  - ◆ Feeding low energy-high bulk diets is appropriate for gestation sows.
  - ◆ Individual feeding stalls allow sow specific management of groups of sows.
  
- 6) **Strategic culling:** Older sows provide some immunity benefits and replacement gilt costs are high. Managing and selecting for sow longevity is beneficial.
  - ◆ A 12 pigs/year sow eats almost as much feed as a 20 pigs/year sow.
  - ◆ Batch farrowing critical for niche producers.
  - ◆ Can you really afford to keep sub-par maternal animals that fail to breed on time with the group?
  - ◆ Chronically sick pigs should be eliminated to avoid further infection of the herd.
  
- 7) **Marketing decisions:** Larger animals require more feed for each pound of additional gain, thus a historic strategy for managing increased feed costs is to market lighter animals.
  - ◆ Feed to lower boundary of market weight range.
  - ◆ With expensive feed, there is a larger penalty for overshooting target market weight.
  
- 8) **Homegrown feed:** May offer benefits to the entire farming operation and growing feedstuffs is a common control strategy for Midwest pig farms.
  - ◆ Alternative feedstuffs in rotation may enhance soil fertility and pest management options.
  - ◆ Alternatives such as small grains provide a valuable source of high quality bedding.
  - ◆ Consider all costs and benefits, including quality assurance of homegrown feed as compared to feed purchased from distant sources.
  - ◆ Homegrown feeds may result in greater net yield for the farming operation as a whole.