

Matching Carcass Specifications of Your Market

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Most niche markets have carcass specifications and reward producers who meet those criteria. Docks or sort loss -- reduction in the price paid for a particular pig that does not meet size or carcass quality specifications -- also are used. Common market criteria include fat thickness, meat quality characteristics, and carcass weight. Meat quality as it relates to genetics and feeding program has been discussed in leaflet number 410 and section 300 of this handbook respectively. Consistently producing pigs that meet the market criteria is one strategy a producer can use to insure that they receive the maximum premium from each pig.

Optimizing Backfat Thickness

Backfat can be influenced by pig gender, nutrition, and genetics. Barrows grow faster and naturally carry more backfat than gilts. A pig will become leaner and more muscular if extra amino acids are fed in the diet. Overfeeding amino acids will make the pig leaner because excess protein is converted to energy less effectively than starch. Amino acid feeds tend to be more costly than other feeds. If there is a dock for pigs that are too lean, care must be taken not to over feed amino acids.

Genetics is the primary influence on backfat thickness. Some breeds are known for less backfat while others produce fatter carcasses. Genetic choices should be made with a goal of improving how well the pigs match the market's criteria.

Carcass Weight

Production practices that improve pig uniformity in the pen should be adopted. Some niche markets have narrow target weight grids, and it is difficult to minimize sort losses unless pigs are similar in size. It can be difficult balancing the number of pigs ready for market with the buyers' demand for pigs in a given week. Constant communication between producer and the niche pork buyer and scheduler is critical for supply to match demand. Strategies to minimize size variation within a pen and thus reduce sort loss include:

- ◆ Market optimal loads -- evaluate the costs and benefits of marketing smaller loads more often. Compare the cost of discounts from selling pigs outside of the target range with the increased cost of more trips with fewer animals.
- ◆ Bunching pigs at farrowing -- begin with a pen-sized group of pigs of the same age.
- ◆ Improving herd health reduces the number of slow growing pigs that are potentially too small for market.
- ◆ Improve genetics -- maximizing heterosis will improve the vigor of the pigs and potentially reduce sort loss.
- ◆ Make use of scales when sorting.

Dressing Percentage

Optimum weight is a matter of growing pigs to the correct weight determined by the marketing grid. Because market pigs are sorted by live weight, and most grids are measured in carcass weight, it is important to accurately estimate dressing percentage. Dressing percentage, or carcass yield, is

determined by dividing the carcass weight by live weight. Carcass weight is the weight of the meat and bone that remain after the head, organs, feet, and skin have been removed. In the United States, the estimated baseline dressing percentage for commodity pork is 74%. This baseline is of limited value to niche pork producers and should be replaced with a farm specific estimate as soon as possible.

Two independent factors affect dressing percentage: gut fill and carcass conformation.

1) Gut Fill

Gut fill literally is the weight of the gut and other organs that are removed from the pig carcass. How much the pig eats and drinks before being weighed live directly influences dressing percentage. A long transport time will increase dressing percentage as the stomach contents are emptied during the trip. A slight amount of tissue shrink may occur after about 12 hours without water. Tissue shrink will negatively affect the carcass weight, and should be avoided.

2) Carcass Conformation

Carcass conformation depends upon the structure and size of the pig. Short, stocky pigs tend to have higher dressing percentages. Pigs that are heavily muscled tend to have a higher dressing percentage. Pigs finished in cold environments usually eat more feed, often increasing stomach capacity. This in turn lowers the dressing percentage. Similarly, pigs fed forages will also develop larger guts and this results in lower dressing percentages.

Additional Resources

Iowa State University Extension, 1999.
Measuring Pork Quality. IPIC 7.

Purdue University Extension, 2007. The
New Pork Industry Handbook. Purdue
University. West Lafayette, IN.

U.S. Pork Information Gateway
<http://pork.porkgateway.org/web/guest/home>