

# Just the Facts!

## Comparing the Commercial Swine Industry & the Show Pig Industry

Dr. Rosie Nold, University of Nebraska

The commercial swine industry is focused on producing high quality, wholesome and reasonably priced pork products for consumers. In the *show pig* industry, pigs are managed to achieve high placing in the show ring. Some practices that help animals do well in the show ring may be undesirable in the commercial swine industry. It is important that practices in the show pig industry do not result in negative consequences for shows or for the commercial industry.

### Stress Gene

In commercial production, only about 12% of hogs are stress gene carriers and very few (less than 0.5%) are stress-positive. At some national shows, over 40% of the hogs are stress carriers and over 4% are stress-positive. The stress gene is more common among show pigs because breeders have selected for the leanness and muscling characteristics associated with the stress gene, while ignoring the negative aspects. The negative aspects are that many stress-positive and carrier hogs produce meat that is pale, soft and exudative (PSE). Also, they are more susceptible to "going down" (collapsing and unable to get back up), and to sudden death.

### Extreme Leanness and Muscling and Effects on Meat Quality

Carcass leanness and muscle is important in the commercial swine industry because producers receive price premiums based on backfat and/or percent lean. However, carcasses that have very low backfat or very high percent lean often do not receive premiums and are sometimes discounted because of concerns about lower quality meat and bellies that cannot be used to make bacon. Backfat averages for recent major youth swine shows are much lower than commercial averages. The average of all hogs marketed is approximately 0.75 inches of backfat and 7.0 square inches of loin-eye area. Many major youth shows have averages of 0.4 - 0.5 inches of backfat and 8.5 - 9.0 square inches of loin-eye area. Too much emphasis on carcass leanness and muscle may reduce meat quality. Some major shows have disqualified up to 25% of the carcasses due to meat quality problems. Nationally, less than 10% of carcasses from commercial pigs have similar problems.

### Death Loss and Down Animals

Commercially, less than 1% of hogs go down or die during transport to harvest. Some major shows have had

dead and downer rates of 40%. Compared to the commercial industry, most show pigs are extremely heavy muscled. Many are fed higher rates of ractopamine (Paylean<sup>®</sup>). More pigs are stress gene carriers and stress positives and many may be dehydrated. These factors contribute to higher death loss and downer rates sometimes seen in show pigs.

### Food Safety

Many show pigs are fed Paylean<sup>®</sup>, which if done according to label directions, does not cause food safety concerns. However, there is some concern that exhibitors may be tempted to use Paylean<sup>®</sup> above labeled rates to further enhance muscling. Using any feed additive at levels higher than allowed by label is illegal and may result in drug residues. Commercially, Paylean<sup>®</sup> is often used at the lowest level specified on the label, as this is more cost efficient. Also, because of past problems with residues from a variety of medications used in show animals, packing plants must conduct more residue testing on show animals than on commercial animals. This is an expense to the packer and can hurt consumer confidence, regardless of whether illegal residues are found.

### Clipping Hair

A practice that is not done commercially, but is quite common with show pigs, is clipping hair. This may seem harmless, but it does cause concerns among packers because of the difficulty of removing the hair from these carcasses and meeting food safety regulations. Other concerns are that some observers of youth shows may be upset by the squealing that occurs when pigs are held to be clipped. Also, pigs that are clipped extremely short are susceptible to sunburn or chilling in cool conditions.

### Conclusion

Many of the differences between the commercial and show pig industries, such as the issues of downer pigs and food safety, can create negative publicity about youth shows. The management practices used with show pigs do not need to be identical to those used for commercial swine production, but it is important that all the practices used have the same goal as commercial swine production – that of producing a high quality, wholesome product for consumers at an economical price. The goal of doing well in the show ring should only be achieved if the first goal can also be met.