UPDATE SESSION

Composition and Quality Assessment Procedures

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Introduction

The U.S. pork industry can be proud of the products it produces. It is certainly one of the reasons that domestic and export demand has grown like it has. The pork industry has progressed very rapidly in response to the consumer's demand for lean pork. Pigs marketed in the United States are now leaner and more heavily muscled than ever before. The Pork Value program (initiated by NPPC in early 1980s) has led to a steady change in carcass merit buying programs. The establishment of carcass merit pricing has subsequently led to an overall improvement in pork leanness. Today's health conscious consumer now perceives pork as a healthy, tasty, low-fat food staple.

Any list of factors affecting the pork industry's ability to achieve success in domestic or world markets in the next century must include the quality of the product. The increased emphasis on selection for leanness has resulted in an indirect selection against pork quality factors associated with flavor, juiciness, tenderness, color, and water-holding capacity. Because of this trend, many packers have modified their pricing grids, reducing premiums paid for extremely lean and heavily muscled pigs. The U. S. pork industry has intensified its efforts in regard to pork quality, setting the goal of total consumer satisfaction.

Purpose of the New Publication

The National Pork Producers Council has been in the business of providing reference standards and defining procedures for evaluating hogs for several decades. The organization was involved in these efforts long before the first publication of the ***Procedures to Evaluate Market Hogs*** was published in 1971. About every ten years, another edition was published. With each edition, an updated version of the quality standards was also published. Over the years, there were different approaches to numbering the standards. For a time NPPC took it upon itself to define what were the acceptable and unacceptable standards. NPPC even changed the name of the loineye to the loin muscle so that the new term *loin muscle area* was coined to more accurately describe the location.

In the past, carcass contests were the only place that anyone ever gave any consideration to lean composition or meat quality. So much has changed in technology and approaches to carcass measurement that it was decided that the new publication needed to be more than simply a book on how to run a carcass contest. Therefore, this publication is directed at procedures in carcass contests, in the laboratory, and on-line in packing plants. All of the latest technology is addressed. In anticipation of the development of this new publication, attention was given to revising the color and marbling standards. After two years of work on color and marbling detection and definition, photographs were taken of meat incrementally different in color and marbling. These photographs serve as the basis for the new quality standards. These standards are objectively based for the first time in their history. But unlike the past, NPPC is not defining what is acceptable or unacceptable. The marketplace, with its varying needs, can use these new standards to classify quality and establish degrees of acceptability based on individual market demand.

Differences from the Procedures to Evaluate Market Hogs

Many changes have occurred in the U.S. pork industry since the *Procedures to Evaluate Market Hogs; Third Edition* was published in 1991. This new publication reflects those changes and looks to an exceptional future. The new *Composition and Quality Assessment Procedures* manual emphasizes all aspect of the market chain focusing on the production of lean, high quality pork. This new manual was developed through the collaboration of experts in the fields of Meat Science, Nutrition, Genetics, Swine Production, and Marketing. The authors are representative of Producers, Industry, and University leaders dedicated to achieving the goal of making pork the *Meat of Choice.*

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As stated previously, the new *Composition and Quality Assessment Procedures* manual emphasizes all aspect of the market chain. The contents include market animal evaluation, live pig ultrasound evaluation, carcass characteristics and evaluation, competitive assessment of carcass composition and quality, electronic evaluation of carcass composition, detailed procedures for collection of carcass data in the packing plant, and updated carcass composition prediction equations (and examples). Much more attention was given to pork quality evaluation in the new publication. Sections include discussion and evaluation of water-holding and water-binding capacity, pork muscle pH decline, analysis of fresh pork color, firmness, wetness and marbling (both objective and subjective evaluation), pork muscle protein quality, pork fat quality, and pork palatability evaluation by the use of mechanical means or sensory panel.

Conclusion

Composition and Quality Assessment Procedures is available from the National Pork Producers Council (PO Box 10383, Des Moines, IA 50325) and can also be obtained during the Reciprocal Meats Conference. This publication has been highly anticipated and should provide a wealth of information to producers, packers, extension personnel, and scientists for many years to come.