

Update on Pork 101™

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Introduction

Pork 101 is a three-day, hands-on course that updates interested participants on quality and consistency issues in the pork industry. It includes insight on value differences in market hogs, pork carcasses, pork primal cuts and processed pork products due to quality variation. The course was cooperatively developed by Michigan State University, Texas A&M University, and the University of Nebraska with sponsorship by the American Meat Science Association and the National Pork Producers Council.

Course Objectives

A pilot course was conducted September 23-25, 1997, at the University of Nebraska to evaluate course development before the course was promoted to national audiences. The course content was developed to address the following three objectives:

- a. Provide in-depth training on quality and consistency issues in the pork industry.
- b. Provide insight on value differences in swine, pork carcasses, pork primals, and processed pork products due to quality variation.
- c. Provide a framework whereby participants in all phases of pork production can implement management and production changes to increase value through improvements in quality and consistency.

The audience for the three-day course is intended for anyone involved in the production, processing, or marketing of pork. The audience could include pork producers, veterinarians, researchers, educators, pork packers, meat processors, retail merchandisers, foodservice distributors, exporters, allied industry, or media. Each session is limited to 32 participants to ensure hands-on learning by all attending.

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Course Outline

The following agenda and activities for the course were developed considering the audience and course objectives.

Day 1

- 4:00 p.m. Welcome
Impact of genetics on lean quality
Grading and evaluation of live market swine
Pork carcass lean value pricing
Evaluate market swine
- 5:30 p.m. Quiz on pork quality and consistency
Dinner and taste test
Perspective on quality and consistency
Review and select 8 hogs for fabrication
Review results of dinner taste test
- 9:00 p.m. Adjourn

Day 2

- 7:15 a.m. Breakfast
- 7:30 a.m. Pork carcass evaluation and review 8 carcasses for fabrication
- 8:00 a.m. Pork Slaughter Procedures and Innovations
-HACCP and microbial interventions
-pH and other quality measurements
-Measuring carcass composition
-Hot boning for improved processing
- 10:30 a.m. Pork carcass fabrication, boneless and bone-in
- 12:00 p.m. Lunch
- 1:00 p.m. Presentation on meat curing

Value addition to pork products
Curing bacon from 8 carcasses
Production of fresh sausage using hot boned meat
Reduced fat ham production from 8 hogs
Demonstration of pale soft and exudative pork and dark firm and dry pork in processing
Marinated fresh pork products

- 5:00 p.m. Adjourn

6:00 p.m.	Dinner
	Merchandising fresh pork
Day 3	
7:00 a.m.	Breakfast
7:45	Pork Quality Assurance
	Review quality and consistency measures on 8 carcasses
	Shear and taste panel evaluation of 8 carcasses
	Calculation of carcass value on the 8 carcasses
	Evaluation of cured products
	Review and grade carcasses from day one
	Lunch
1:30 p.m.	Adjourn

Pork 101 Activities

The activities for the course primarily center around two groups of market hogs. One group of four market hogs is used during the course for live evaluation and slaughter demonstrations. A second group of eight market hogs is slaughtered before the workshop to provide carcasses for fabrication, taste panel evaluations, and quality measurements that cannot be accomplished during the workshop. Using both sets of market hogs allows for the course to cover quality and consistency issues from production to consumption.

Participants have the chance to evaluate four live hogs on the first day. The four live hogs are used to demonstrate differences in market value for a lean pig, a fat pig, a light weight pig, and a heavy weight pig. These same market hogs are then used for the slaughter demonstration on the second day of the workshop. Slaughter demonstrations include measurement of carcass pH, measurement of carcass composition, HACCP (hazard analysis critical control point) systems for slaughter, hot processing of pork, microbiological interventions during slaughter, and microbiological sampling for generic *E. coli*. In addition, on the third day of the course the carcasses are evaluated for lean quality and quantity traits, and are priced according to industry buying programs.

A second set of market hogs is recorded on video and the hogs are slaughtered before the course begins. The use of these eight carcasses during the workshop gives participants the chance for small group hands on learning for carcass evaluation, carcass fabrication into bone-in and boneless primals, curing of the hams and bellies from the eight carcasses, and conducting taste panel evaluation on the final day of the course. Conducting slaughter before the workshop allows time to conduct a number of lean quality measurements. Measurements such as drip loss, hunter color, 45 minute and ultimate pH, per-

cent lipid, and percent moisture by proximate analysis and color visioning analysis can be taken before the course begins. The purpose of these eight carcasses is to focus on variation in composition, lean color, lean firmness, and marbling in the *longissimus*. The carcasses are selected from a larger group of genetically diverse market hogs to obtain these differences.

The remainder of the topics covered during the course does not tie directly to the two groups of market hogs but provide unique learning experiences for the participants. For example, on the first day, a dinner is served in which the participants are given two chops to rate for tenderness and taste. The chops can come from loins that are preselected for opposite quality traits such as high marbling verses low marbling, and pale, soft, and exudative verses dark, firm, and dry. Different quality contrasts are served to different individuals to cover a number of quality comparisons during the meal. The information is summarized and presented to the participants at the end of the first day.

Another learning experience is a quiz on quality and consistency using cuts of pork displayed in a retail counter. Pork cuts are purchased from local retail stores for the demonstration. This exercise helps to focus on a number of quality and consistency problems in the industry.

Other Course Materials

In addition to the development of the course outline and activities, a course notebook, leaders guide, forms for the activities, slides, and video tapes for use in future Pork 101 courses were developed.

Pork 101 Course Evaluation

The activities in the pilot course were evaluated by the participants. The activities and workshop content were rated good to excellent by the participants. The overall evaluation of the course was rated as excellent and many participants had very positive remarks about the course. When asked to identify things that participants liked about the course the most popular answers related to "the hands on nature of the course" and the "evaluation of the live market hog through the product basis."

Implementation of Pork 101

In September of 1997 the AMSA and NPPC scheduled Pork 101 courses at nine University locations. Colorado State University, Kansas State University, Iowa State University, University of Nebraska, Virginia Polytechnic Institute & State university, University of Florida, Oklahoma State University, Texas A&M University, and Michigan State University were selected for conducting a Pork 101 through

August of 1998. As of April 24, 1998, two courses had been held reaching approximately 40 participants from major pork industry businesses. Participants have mostly come from the processing and allied pork industries. Producers have expressed some concerns about the time of year and the cost of the course. Plans are to continue to offer Pork 101 in the future and to provide other incentives for producers to attend the course.

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