



► Students learn to evaluate meat quality from experts.

Beef Processing 300

From holding pen to dinner plate, Northwest beef producers get hands-on experience processing the product that pays their bills.

Story & photos by **Ed Haag**

If you ever wondered what happens to your livestock between the feedlot and the grocery meatcase, you might just want to sign up for Washington State University (WSU) and University of Idaho's (U of I) annual four-day short course titled Beef 300.

"The purpose of the program is to show what really goes into producing a quality product for consumers," says Jan Busboom, professor of meat science, WSU Extension meat specialist and one of the principle organizers of Beef 300.

He goes on to point out that the interdisciplinary hands-on workshop has been developed by WSU and U of I expressly for producers, feeders and marketers with an overall goal of reconnecting the production side of the industry with the processing side.

"We want to expose producers to a side of

the industry they normally don't deal with on a daily basis," Busboom says, adding that by increasing their knowledge of how their beef is processed and sold, the course participants will have a better grasp of the processing continuum from farm to plate. This, in turn, will allow the participant to

make more informed decisions to improve profitability, competitiveness and wholesomeness of the food products they are producing.

This is accomplished, Busboom says, by exposing those individuals involved in producing beef on the hoof to the fundamentals of preharvest cattle evaluation, animal processing, carcass grading, beef cutting and market selection.

The process includes hands-on training in identifying the value-determining factors influencing prices received for live animals as well as processed beef and beef products marketed through various outlets. It also offers participating producers an overview of management, environmental, nutritional and genetic factors that contribute to muscle quality and enhanced value.



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Busboom notes that Beef 300 can trace its origins to similar producer-based courses first offered at Texas A&M University (TAMU) and Ohio State University (OSU) in the early 1990s.

"Texas A&M has had the longest ongoing set of courses, like their Beef 706 program," he says, adding that as the concept has spread to other universities the curriculum is usually changed to suit the region in which it is being conducted.

Valuable tools

With today's profit margins narrowing for live fed cattle, Busboom sees Beef 300 as particularly relevant to today's producer as he struggles to generate a return out of his animals.

"Understanding what the consumer wants and what has value is essential to staying viable in today's markets," he says. "With more and more select supplier programs coming on line, it won't be long before selling a generic calf for decent money will be a thing of the past."

For Busboom, one of the main drivers behind this trend is genetics. He points out that genetics are the ultimate limiting factor in animal quality. By improving the genetics of a herd, value will follow.

"Throughout the whole system, everyone is trying to bring that genetic product to reach its potential," he says, adding that by looking at the difference in carcass quality between animals with good and poor

genetics a producer has visual proof of why it plays such an important role in 21st century beef production.

Busboom notes that another reason to learn more about the processing and marketing side of the beef industry is the growth of specific niche markets in recent years.

"In the Northwest, we are seeing a growing number of niche markets opening up for producers interested in selling specific value-added products," he says. "Organic and grass-fed beef are just two examples."

By attending Beef 300, prospective niche marketers gain a better understanding of what is involved in moving their cattle through the processing chain all the way to the retail sale.

"Having that understanding will allow the producer to make the appropriate decision on whether or not a particular market is a good fit for his operation," Busboom says.

He adds that even those who have no intention of marketing their crop beyond weaned calves at the sale barn have the opportunity to benefit from the course.

"By increasing their understanding of

meat quality and marketing, participants are better able to apply their resources to improvements that will actually yield a better return on their investment," Busboom says.

Show and tell

University of Idaho meat scientist Ron Richard agrees that having even a nominal understanding of how cattle are processed and marketed will help a producer in formulating an economically viable production strategy.

"The more a producer knows about what increases value at harvest the better equipped he is to provide it and get a little more at the packers," he says.

Richard notes that when cattle prices were high, a premium for quality calves was just that, but now, as prices drop, what was once considered a premium is often nothing more than a slim profit margin.

"When times get tough, it is particularly important to

look at ways to improve value," he says, adding that those who follow that premise are those who will remain viable. "That is the reason why the biggest emphasis in this program is on beef quality and learning to look at and identify those factors in both preharvest and postharvest."

He points out that improving quality and value doesn't necessarily mean a major financial investment on the part of the producer. Richard adds that it can be as simple as avoiding practices that will cost the producer at the point of sale.

"It is always more effective to show a producer exactly how something he does in preharvest can impact carcass quality after slaughter and cutting," Richard says. "Then he can see it."

He cites, as an example, meat quality issues associated with administering injections directly into the hindquarter muscle.

"The easiest way to give injections is to run the cattle down the chute and pop them in the butt," Richard says, adding that it might be the most convenient way to inoculate animals, but it doesn't come without a price. "This is something you might not even see on the hanging carcass because damage is often deep down in the muscle."

But eventually the price must be paid,

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— Jan Busboom



► Comparing carcass quality is an excellent learning tool.

Richard says. “The way it would finally happen is that six sirloin butts in a case would be shipped to the grocery store. The butcher cuts into one and here, right in the center, is scar tissue or perhaps even an abscess. That top sirloin butt just became rendered product.”

Richard feels that courses such as Beef 300, where the producer can actually see the effects of a practice on value, have played a significant role in convincing them to change how they conduct their operation.

“Because of programs like Beef 300, we are moving away from intramuscular injections in the hindquarters to giving shots under the skin and in the neck,” he says.

From steers to sirloin

One feature popular with participants and specific to Beef 300 is the live cattle fantasy auction the second day of the course. Initially, meat scientists from WSU and U of I demonstrate how to evaluate live cattle for harvest value. Once the demonstration is completed, participants are invited to try their new evaluation skills on another set of live animals.

“In the time we have with participants, we are not going to teach them to be outstanding livestock evaluators, but we can help them see what a buyer wants to see,” Busboom says. “This, in turn, will allow our producers to make better selection and production decisions.”

Finally, toward the end of the second day the participants are broken into groups and asked, as teams, to bid on individual animals as they are presented on a video. While no real money exchanges hands, there is a competition to see which team buys the animal that offers the best return on the dollar invested.

For logistical purposes the animals in the video have already been harvested so that their carcasses could be hung for the prescribed period of time required before evaluation and cutting.

Over the final two days of the course, participants remain in their respective teams as experts from various sectors of the beef processing and marketing sectors present their perspective on beef quality. Participants receive hands-on instruction in evaluation,



►Left: Producers are exposed to all aspects of beef processing.

selection and cutting while practicing their new skills on the carcass purchased by the team.

As for determining the winner of the fantasy auction, Busboom sees a valuable education component in the process. “We factor back the value of their animal using the same methods that a packer would use,” Busboom says. “In other words, we base the total carcass value on what the individual cuts of meat are worth.”

He points out that it isn’t always the highest-quality cuts that win the contest. “The deciding factor might be that one team managed to pay less,” Busboom says.

Learning the language

For both Busboom and Richard, the opportunity to exchange ideas between different segments of the beef industry should provide enough motivation for attending Beef 300.

“We have people from every segment of the industry either participating or instructing,” Busboom says. “There are some real advantages to

learning how to speak each other’s language.”

Busboom sees the advantages of interaction between sectors as more than just having a better understanding of what the consumer wants. Good communications between those producing the product and those processing and marketing it are essential to reaching the kind of compromises that initiate real change.

“Sometimes it might require the processor to listen to what his supplier says about the challenges involved in delivering what the market demands,” Busboom says. “Then it is up to the processor to ask how we can get what we want and do it in such a way that is practical to you.”

He adds that understanding what each sector of the industry expects from the other is only part of the equation.

“By interacting with people from different segments of the business a producer can also better understand what he must do to identify his product as having additional value,” Busboom says. “No matter how special your calves are, if you just sell them without doing any marketing then you are probably not going to get a better price.”

Changing with the industry

Sarah Smith, area animal science educator, WSU Extension, says one of the primary objectives of Beef 300 is to remain responsive to an ever-changing cattle industry. In recent years she has seen a growing interest among producers and feeders in the end product, and their 2009 program reflected that interest.

“We wanted to get the perspective of the hands-on person, the professional,” Smith says, adding that interest will increase as palatability and tenderness become more closely linked to genetic predisposition.

Another area that received more attention in 2009 was the role feed and nutrition played in producing a quality product.

“This topic has been generating a lot of interest, so we expanded our presentation in response,” Smith says.

Not wishing to avoid controversy, the Beef 2009 course included a section on country-of-origin labeling (COOL). “We looked at how COOL impacted each segment of the industry and the value it potentially has for the U.S. cattle industry,” Smith says.

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