

Buried Treasure

The checkoff-funded Beef Innovations Group develops the next generation of value-added cuts from the chuck roll.

Story & photos by *Chelsea Good*

One person's trash is another's treasure. The common saying of garage sale enthusiasts and junkyard treasure hunters applies to the beef carcass as well.

A five-year study in the mid-1990s indicated the value of the beef chuck and round dropped more than 20%, while the value of the rib and loin climbed 4% to 12%. Considered the "junk meat" of the beef carcass, beef chucks and rounds were traditionally either ground into hamburger or utilized as slow-cook pot roasts, something few modern moms have time to prepare. Meat from these primals accounted for less than half of the value of a beef carcass, despite making up more than two-thirds of the carcass volume.

In an attempt to turn this startling trend around, the National Cattlemen's Beef Association (NCBA) coordinated a checkoff-funded muscle-profiling study. More than 5,500 muscles from the chuck and round

were analyzed in the study conducted by the University of Florida, the University of Nebraska (NU) and NCBA's Center for Research and Technical Services. Considered the most extensive study ever of beef muscles, researchers measured tenderness, fat content, color, pH, water-holding capacity, connective tissue content and bind capacity.

The researchers found a great amount of variety in the chuck and round. While some muscles were tough because they were used for locomotion, others were surprisingly tender. To them, this indicated the potential to add value.

First wave

Researchers at the checkoff-funded R&D Ranch were already in the process of developing, testing and marketing value-added cuts from the shoulder clod in the chuck.

"We saw value we needed to capture in the chuck and round," says Bucky Gwartney, NCBA executive director of product enhancement research. "The muscle-profiling study was the foundation that helped us focus these efforts."

The study provided a scientific basis backing up the new cuts' unrealized value. This led to packers, restaurants and retailers opening up to the new cuts that were being presented.

The star of the first wave of value-added cuts is the flat-iron steak. Derived from the top blade, the flat iron ranks second in steak tenderness, trailing only the tenderloin. A large band of connective tissue running down the center of the steak had caused the flat iron to be assumed as a tough muscle best used as a top-blade roast. However, the muscle-profiling study revealed its true potential. With this connective tissue removed, the flat-iron steak has proven quite successful. Flat irons sold in 2006 totaled 92 million pounds (lb.) — a 96% increase compared to 2005.

The petite tender is another first-wave success. This cut is derived by separating the *teres major* muscle from the shoulder clod. Tony Mata, technical consultant with the Beef Innovations Group (BIG), which developed from the R&D Ranch in February 2006, says that at first people were skeptical. Many felt the muscle, which averages about ½ lb. to 1 lb. in size, was too small to make a difference, especially since there are only two in each carcass. Now, 90% of petite tenders are cut out and marketed that way, Mata says.

The ranch steak, cut from the center of the chuck, rounds out the top three first-wave products.

Retail stores offering at least one of these cuts jumped from 321 in 2003 to 9,900 in 2006. The cuts have fared even better in restaurants, appearing on the menus of 20,000 restaurants across the country.

This results in adding value to cattle producers, meat manufacturers and processors, retailers, and foodservice operators. The return to the producer is evident, with Cattle-Fax estimating that the first group of value cuts added \$50-\$60 per head to the value of the chuck.

Perhaps this success can be attributed to the desire to create value in the underutilized chuck and round while maintaining a consumer focus.

"Every item we come up with has to have a reason for being from the perspective of the consumer," Mata says. He adds that what the flat iron brought to the table was a moderately priced steak that fills the void between ground beef and premium steaks.

Gwartney agrees. "We're looking at price



► The second wave of value-added cuts to result from efforts of the Beef Innovations Group is coming from the chuck roll. "It's a more complex, more challenging group of muscles to deal with," says Bucky Gwartney, NCBA executive director of product enhancement research. "But there is still great potential there to add value to the beef carcass."



► **Left:** A meatcase at the Cattle Industry Summer Conference displayed the differences in the traditional cuts and new uses for the chuck roll. The products unveiled during the conference included a tender steak for grilling, an affordable roast for dry roasting, boneless country-style ribs and a fully cooked roast.

► **Below:** Attendees of the Cattle Industry Summer Conference swarmed the display and spoke with Chris Calkins, University of Nebraska meat scientist involved with the muscle-profiling study, about the new cuts.



pressure, and even though we've created value-added cuts, they are still economic cuts," he says.

Next generation

The BIG is a team of 16 meat scientists and industry professionals that recognizes further potential to create value in the chuck and round. So, it turned its attention back to the chuck to create a second wave of value-added cuts. This time, the focus was on the chuck roll.

"It's a more complex, more challenging group of muscles to deal with," Gwartney says. "But there is still great potential there to add value to the beef carcass."

Mata agrees. "No, we don't have the second most tender muscle in the chuck roll," he says. "But we do have the fourth. And the eighth."

Through years of research, the BIG has developed three new cuts from the chuck roll and one new processed product, all of which are expected to launch in foodservice and retail sectors in 2008. The new products include a tender steak for grilling, an affordable roast for dry roasting, boneless country-style ribs and a fully cooked roast.

These products were unveiled to producers and agricultural business professionals at the Cattle Industry Summer Conference in Denver, Colo., July 18. A meatcase displayed the differences in the traditional cuts and new uses for the chuck roll. Before the session, attendees swarmed the display and spoke with Chris Calkins, an NU meat scientist who was involved with the muscle-profiling study, about the new cuts.

During the session, Mata gave a cutting demonstration, showing how the new cuts are derived from the chuck roll. He then spoke about the new cuts, using a cutting knife as a pointer during his PowerPoint presentation. A panel involving a cross section of packing and foodservice

representatives joined Mata, Caskins, Gwartney and Ellen Gibson, NCBA executive director of new product initiatives, to answer questions.

Attendees got the full experience by taste-testing what the BIG hopes to call the cattlemen's steak and the fully cooked carver beef roast. The names were developed by industry professionals and have been tested on consumer focus groups. However, they have not been finalized. Tentative names for the fresh roast and ribs are classic beef roast and boneless country-style beef ribs.

Challenges

Don't worry about tentative names creating confusion for consumers. These cuts are not yet available to the public and are still considered a work in progress.

One challenge that lies between the cuts and the consumer is determining who will do the knife work. During the unveiling of the cuts, panelists offered their viewpoints on this matter. The senior manager of research, development and meat science at National Steak and Poultry, Nancy Jose-Cecil, talked about how she liked the marbling, texture and beef flavor of the new chuck roll cuts, but was concerned about who would be responsible for the additional cutting it takes to get to the new cuts.

"It takes quite a bit of labor to break the under blade," she says. Jose-Cecil told fellow panelist Matt Gardner, value creation development manager with Cargill Meat Solutions, she'd like the packer to take on this role.

Gardner had a different idea. "It's easy to break the chuck into two pieces," he says. "The real problem for us is if we need to separate out the bottom blade. That would quadruple our labor on the chuck line."

Another alternative that was brought up

during the session was the possibility of contracting the additional cutting out to a third party.

Clearly, this issue will need to be addressed before the new products roll out in 2008. The good news is both Jose-Cecil and Gardner are excited about the new cuts' potential.

"There's a real opportunity for another middle-of-the-road-priced steak," Gardner says. He adds that the category was created by the flat iron and is wide open for newcomers.

Tom Holtz, an Iowa beef producer and chairman of NCBA's joint new products and culinary initiatives committee adds that he's excited for the versatility and convenience the new cuts offer. He says consumers appreciate options when it comes to steak portion size and price points. Especially with few people having the time to prepare a traditional pot roast, he says the new precooked roast is also an excellent way to add value to the chuck.

Treasure chest

The chuck has been traditionally labeled as a low-value part of the beef carcass. However, it's now proving to be more like a treasure chest.

"Smart butchers have known for years that the top blade is very tender," Mata says, calling the steak now known as the flat iron the "butcher's secret." He adds that many butchers would take home the undervalued piece for their own enjoyment.

Thanks to the muscle-profiling study and hard work of the BIG, these treasure cuts are being identified and marketed so that cattle producers, as well as meat manufacturers and processors, retailers, and foodservice operators, get a share of the loot.

