

# Research • Education • Innovation



Annual REI Update  
January, 2011

# Research • Education • Innovation



## Remarks from Industry Leaders

America's beef farmers and ranchers today are facing unprecedented challenges which curtail their ability to provide a safe, nutritious and delicious protein food to a global population. In recent years, marketplace competition among animal protein sources has intensified. Consumer attitudes and needs have evolved, impacted by both the changing nutrition environment and the recession. In addition, activists opposing animal agriculture have increased their coffers, stepped up their media campaigns, and expanded their activities into the legislative and regulatory arenas at both the state and national level.

The Beef Checkoff is both proactive and reactive in response to these challenges. Through integrated programming, the checkoff launches Marketing and Communication programs that highlight those demand drivers that impact consumer attitudes and behaviors about beef. Reacting to negative events, the Issues Management program protects consumer confidence by leading unified industry responses to critical issues and works to strengthen the reputation of the beef industry.

The Research, Education, and Innovation (REI) department provides the scientific evidence used to develop the essential messages supporting these marketing, communication, and issues-response efforts, but also makes available tools and technologies to help increase industry effectiveness in producing a great tasting, nutritious and safe beef product for consumers who continue to love beef. The feature article in this report illustrates how the REI department, through integrated programming spanning more than a decade, can make a difference for all industry participants as well as consumers. Ultimately, America's beef-producing farmers and ranchers reap the benefit through increased profitability.

The REI teams are interdependent and holistic. The checkoff program areas, Beef Quality Assurance, Beef Safety Research, Product Enhancement Research, Human Nutrition Research, New Products and Culinary Initiatives, as well as NCBA's Producer Education program, collaborate to ensure the best beef product possible reaches the marketplace. The programs initiated in these areas work together to provide all segments of the industry, as well as the checkoff marketing and communication teams, with the knowledge to support new technologies, such as pre- and post-harvest safety interventions, and new communication messages that inform consumers about beef's taste and nutrition advantages.

In recent years, the REI department has revised its annual report format. In the past, the Research Annual Report has followed the traditional annual report template providing results of the fiscal year research projects. Recently, in order to demonstrate how the REI teams have integrated their programs to achieve effective outcomes

for the entire industry, farm to fork, the annual report has evolved from this traditional format. REI has adopted a four-year annual update cycle with changing formats each of the four years. In total, these reports provide a complete picture of how the work of the REI teams, both checkoff and non-checkoff, serve the industry by laying the groundwork for increasing beef demand. In this report, you'll find a comprehensive look at one REI initiative that proves the whole is greater than the sum of its parts. The success realized through the integration of several targeted projects executed by the different REI programs could not have been achieved by any individual program area alone. Brief highlights from individual programs also are included in this update.

The committees included in the Joint Research, Education and Innovation Group are directly responsible for the work undertaken in the REI programs as well as the results achieved. Without visionary leadership, the successful accomplishments in both the checkoff and non-checkoff areas would not have the impact needed to address current challenges to the beef industry. So again, we thank the producer leaders who guide our committees, as well as state beef councils, researchers, industry partners and staff for their commitment to REI's programs. With their sustained support, we will continue to develop the knowledge that protects and expands our industry as it feeds a global population.

Yours truly,

J.O. Reagan, Ph.D.

Senior Vice President, Research, Education & Innovation  
National Cattlemen's Beef Association

Craig Uden  
Chairman, Research, Education & Innovation Group

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## Committee Structure

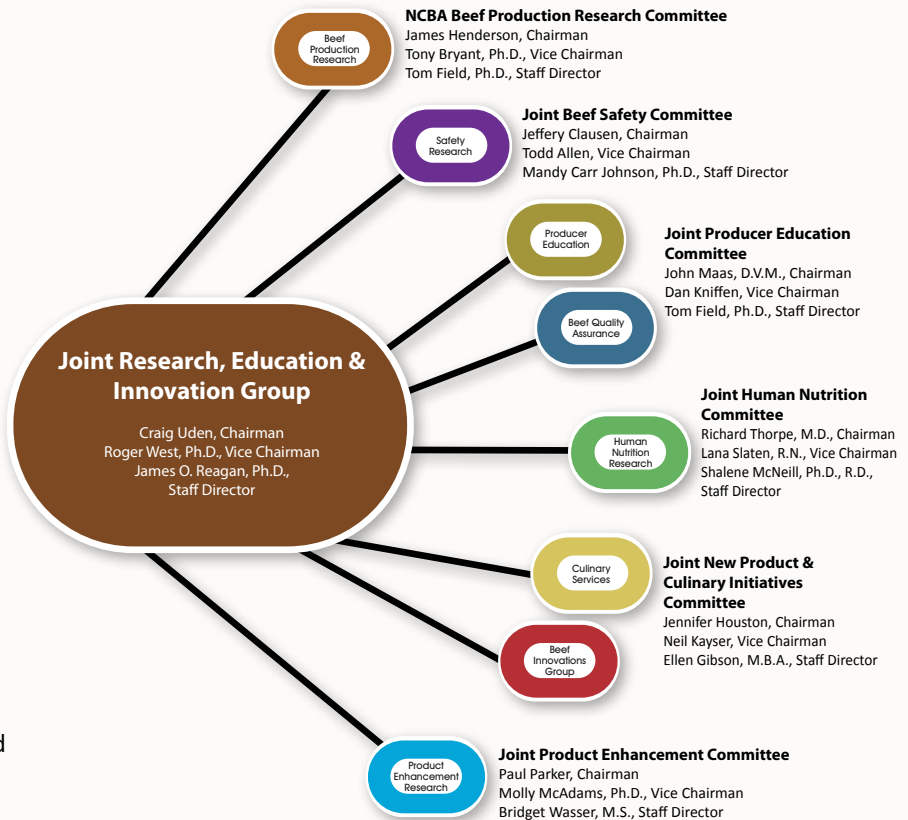
The Research, Education and Innovation department (REI) is organized to align with the joint committees that make funding recommendations to the Beef Promotion and Operating Committee (BPOC) each year.

The REI committees implement projects on differing funding cycles. For example, because human clinical trials may take up to three years, Human Nutrition Research is funded on a 36-month cycle. In contrast, New Product and Culinary Initiatives and Producer Education projects, including BQA, are funded on 12-month cycles.

Research projects undergo a rigorous screening process involving a nine-step planning and implementation program beginning October 1. The Beef Industry Long Range Plan provides direction while expert panels in all research areas meet to assess research priorities and plans. Producer committees assess recommendations and state beef councils review plans and provide input. At the end of this process, Authorization Requests are presented to the joint research committees at Summer Conference. The final Authorization Requests are approved by the BPOC at its September meeting.

Once Authorization Requests are approved, Requests for Proposals (RFPs) are sent to a broad range of research scientists to solicit proposals which then go through another round of reviews in regard to potential impact. On average, only twenty percent of the dollars requested in funding proposals is awarded each year. If specific research has been recommended by committees, targeted research may be solicited in lieu of RFPs.

Results from some recently completed projects initiated by the different joint committees are discussed in the Program Highlights section of this report. All of the work was completed during FY2010 though the projects may have spanned up to a three-year period.



## Beef Consumer Index Update

Increasing beef demand is the ultimate goal of all checkoff-funded programs. The checkoff-funded Beef Consumer Index, conducted biannually by the Market Research team since 2007, is an assessment of those demand drivers that impact consumer attitudes and behavior about beef relative to other meat proteins. The chart below is a ranking of what matters most to consumers

and how beef performs. Beef has performed steadily across these demand drivers since the first Consumer Beef Index was conducted in 2007. Committees across program areas and strategies commit funding towards initiatives that have the potential to directly impact these demand drivers. The following pages in this report describe some of the REI program achievements in efforts “to make beef its very best.” In turn, the program results influence consumers’ attitudes and behavior.

Importance		(Top 2 Box)**			
Rank*	Consumer Perception	Beef's Performance—At Home			
	Beef is:	May-07	June-08	July-09	Jul-10
1	Great tasting	83%	85%	87%	86%
2	Extremely safe to eat	53%	62%	67%	57%
3	Good value for the money	60%	57%	63%	59%
4	Delivers good results consistently	n/a	73%	75%	72%
5	Feel good about eating	65%	71%	73%	71%
6	Balance of taste and nutrition	64%	70%	65%	68%

\* In choosing a main dish for consumption at home

\*\* Consumers who strongly or somewhat agree

## Muscle Profiling

In response to the depressed prices for beef cuts from the chuck and round in the late 1990's, down 20-30% in five years per CattleFax data, producers on the Joint Product Enhancement Committee recommended to the Beef Promotion and Operating Committee (BPOC) an initiative to profile the physical and chemical characteristics of beef muscles from the chuck and round. The BPOC authorizes expenditures from The Beef Checkoff, to which every American beef farmer and rancher and beef importer contribute. The committee's intention was to find the optimal use for each muscle, thereby generating the optimal carcass value. BPOC approval of this proposal, known as Muscle Profiling, set in motion a series of interrelated projects, extending into the present and funded through a variety of checkoff committees, to maximize carcass value for America's cattle farmers and ranchers. Perhaps more than any other checkoff investment, this initiative has required the cooperation and expertise of multiple checkoff programs ranging from Human Nutrition Research to Channel Marketing and Communications.

The beef carcass is made up of over a hundred different muscles, all with differing properties which affect processing conditions and consumer acceptability. For the last twenty-to-thirty years, most beef cuts found in the retail case have been boneless. Therefore, for cutting consistency, it is essential that the cutter have knowledge of the beef animal musculature, or myology. Other emerging industry factors also suggested the need for better understanding the carcass. Food companies were developing more pre-cooked and convenience products using single muscles, substantiating the need for greater knowledge of myology in order to identify specific muscle characteristics to produce the most desirable product.

This ambitious checkoff-funded research project was managed by Product Enhancement Research, a

program now in the Research, Education and Innovation (REI) department at the National Cattlemen's Beef Association. Product Enhancement was charged with the responsibility to uncover the intricacies of the beef animal myology and collaborate with other checkoff programs to disseminate that information to packers, processors, purveyors, researchers and developers, retailers, foodservice and others to maximize value for all industry sectors. The work was conducted on fed-steer and heifer carcasses in partnership with the University of Nebraska and the University of Florida. The end-point was the characterization of 39 primary muscles in the chuck and round. The researchers focused on boning yields, physical characterization, Warner-Bratzler shear force, sensory panel tests, proximate analysis of fat and moisture, color, pigment concentration, connective tissue, pH, water-holding capacity, bind and muscle fiber type. Prior to this project, only small portions of this research had been conducted; however, this particular study represents the most extensive and comprehensive study of the chuck and round ever reported.

The results of this study make it possible for the industry to capture the highest value for the carcass. This new knowledge of the individual muscles has prompted industry experimentation and innovation to find the optimal use for each muscle in the chuck and round, ultimately increasing demand for underutilized cuts and decreasing the price pressures on middle meats.

A follow-up study profiled the muscles of cow carcasses to determine the physical, chemical, and sensory properties of the primary muscles. It also identified differences between beef and dairy cow carcasses and studied the effects of carcass weight, maturity, fat thickness, and muscling on the characteristics of beef and dairy cow muscles. This study resulted in the development of a database of information useful in upgrading the value of market cow carcasses. The data indicate that a wide range of quality characteristics exists in the individual muscles of both beef and dairy cows, making it possible to identify



This feature article in the 2011 REI Annual Update provides the reader an opportunity to see the impact of a series of research projects on numerous checkoff-funded programs. In many ways, the REI programs serve as the long-term visionaries for much of the beef checkoff plan of work. This article provides a real-time look at how these particular programs are interlinked and the definitive results of the team effort.

This article does not focus on all REI programs though most played some role in this story. Those not highlighted include Beef Quality Assurance which provides producer-focused education programs which enhance the producer's ability to produce a consistent, nutritious

and safe product for the marketplace. The Beef Safety Research program provides critical information related to minimizing foodborne pathogens in the beef chain and ultimately providing the safest product in the world to our consumers. The Nutrition Research Program has long been the industry leader in providing sound science on the healthfulness and importance of beef in the diet.

The total REI program strives to "make beef the best it can be" and this is only accomplished by linking all of the REI programs with other checkoff programs through a complicated web that will ultimately drive producer profitability as well as consumer demand.



the best use for each muscle, whether for grinding or as stew meat, or even as retail or foodservice cuts. Some may be best suited for use as the raw material for pre-cooked or convenience products.

By providing the basic information for optimal product use, the results of Muscle Profiling studies are valuable in maximizing the industry's return on product development. The Bovine Myology & Muscle Profiling website (<http://bovine.unl.edu/>) illustrates, in great detail, the muscular anatomy of the beef animal.

### Launching the Beef Value Cuts (BVC)

Understanding the characteristics of the muscles in fed steer and heifers was the first phase of ongoing efforts to add value to the chuck and round. The second phase involved the identification and development of those individual muscles which would add value to the carcass through alternate uses. From the original characterization of the 39 individual muscles in the chuck and the round, several "diamonds in the rough" emerged. Basically, in this phase of the program, REI's Beef Innovations Group (BIG), within the New Products and Culinary Initiatives Team, was charged with the task of using innovative cutting techniques to transform multi-muscle cuts into these more consumer-friendly, single-muscle cuts which would fall between premium steaks and ground beef in price and value.

However, the introduction of each value cut into the retail and foodservice markets required the launch of a multi-faceted merchandising plan developed and implemented by all REI checkoff teams as well as the checkoff Marketing and Communications teams. This phase of the initiative to add value to the chuck and round continues into 2011. To date, 13 value cuts have hit the market, with the latest introduced in 2008. The 13 cuts are:

- Flat Iron, Petite Tender, Petite Tender Medallions, and Ranch Steak (from the shoulder clod)
- Sirloin Tip Side Steak, Sirloin Tip Center Steak, Western Griller Steak, and Western Tip (from the round)
- America's Beef Roast, Boneless Country-Style Beef Chuck Ribs, Delmonico Steak, Denver Cut, and Sierra Cut (from the chuck roll)

The Beef Innovations Group took the lead position in compiling the data, developing the materials and extending the news to the appropriate industry segments. Finding the muscles and identifying the optimal cutting techniques was only the beginning. The next step was to educate the fabricators and processors on the potential economic advantages. For the products to reach the market, the REI checkoff teams determined they must pull the products through the system by starting with consumers. They enlisted the support of the market research team to test all new cuts with consumers on taste, use, recipes, and names, thus providing evidence of consumer acceptance of the new cuts.

Using the Muscle Profiling results to understand each muscle's expected performance, the Culinary Innovations Team determined optimal cooking temperatures and developed both foodservice and/or consumer recipes depending on the audience identified for each cut. The Human Nutrition Research program commissioned checkoff-funded nutrient analyses of the new value cuts. The data for the clod and the chuck have been published in the USDA National Nutrient Database for Standard Reference, Release 23, the authoritative food composition database for most foods, including beef. This information allows industry to market as "lean" those cuts that meet the government guidelines for the "lean" designation. Eight of the 13 new Beef Value Cuts meet the criteria, including Petite Tender, Petite Tender Medallions, Ranch Steak, Sirloin Tip Side Steak, Sirloin Tip Center Steak, Western Tip, Western Griller Steak and America's Beef Roast.



Denver Cut Steak



America's Beef Roast



Boneless Country-Style Ribs

# DEVELOPMENT OF NEW VALUE CUTS

This center spread is an illustration of how the checkbook responded to depressed prices for the chuck and the round by providing profitable opportunities for new value cuts from individual muscles in the chuck and the round, specialties beyond their traditional use. Through technical advances, “diamonds in the rough” have become

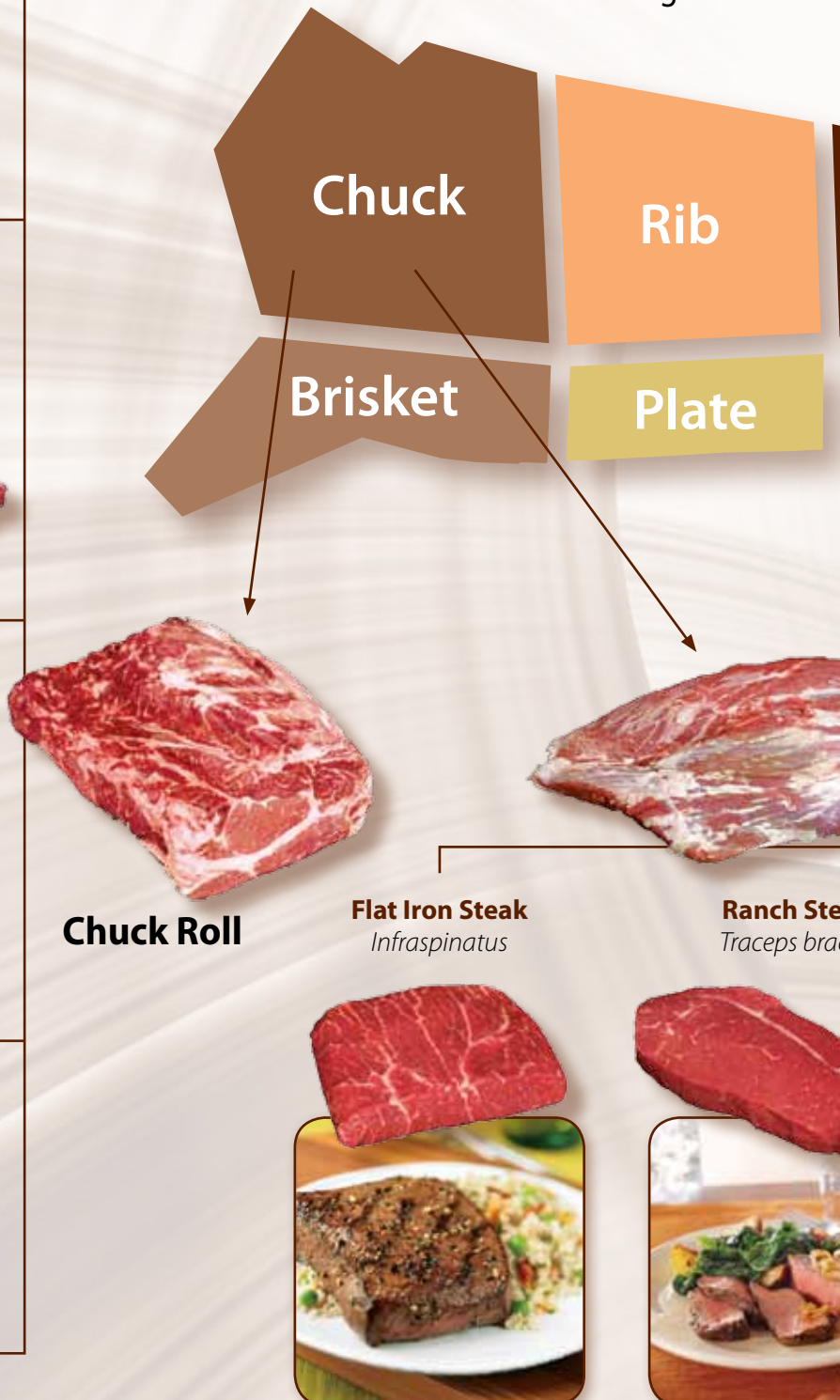
**Sierra Cut**  
*Splenius*

**Denver Cut**  
*Serratus ventralis*

**America's Beef Roast**  
*Multifidus dorsi, Spinalis dorsi, Complexus*

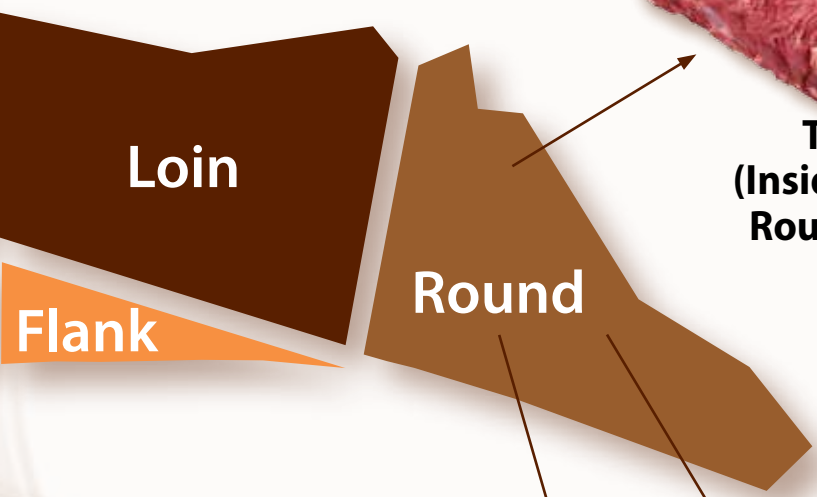
**Boneless Country-Style Ribs**  
*Multifidus dorsi, Spinalis dorsi, Complexus*

**Delmonico Steak**  
*Longissimus dorsi, Multifidus dorsi, Spinalis dorsi, Complexus*



# CUTS IN THE CHUCK AND THE ROUND

A government-funded Muscle Profiling project, initially launched in the late 1990s, has invigorated the industry. Through a stringent, scientific process of analyzing the specific muscles were identified as having marketable potential. Through development and targeted marketing programs, these have become the industry's new value cuts.



**Chuck Shoulder Clod**

**Shoulder Petite Tender**  
*Teres major*

**Top (Inside) Round**

**San Antonio Steak**  
*Adductor*



**Round Petite Tender**  
*Pectineus*



**Tucson Cut**  
*Semimembranosus*



**Santa Fe Cut**  
*Gracilis*



**Heel**

**Braison Cut**  
*Superficial digital flexor*



**Merlot Cut**  
*Gastrocnemius*



**Bottom (Outside) Round**

**Western Griller Steak**  
*Biceps femoris*



**Western Tip Steak**  
*Biceps femoris, rump end*



The successful launch of each cut required the development of a series of public relations and marketing materials including:

- How to Cut, including downloadable cutting guides
- How to Prepare
- Sell Sheet
- Recipes
- Nutritional Profile of the cut
- Myology of the cut and the Research supporting the suggested use



The BIG team, with support from state beef councils, had face-to-face meetings to share this information with meat processors, foodservice chefs, and retailers, as well as government agencies to obtain necessary approvals. All of these materials are available on the BIG website, [www.beefinnovationsgroup.com](http://www.beefinnovationsgroup.com).

### Success of the Beef Value Cuts

Over the years, this initiative has required the expertise of several national beef checkoff programs as well as the support of state beef councils, producer leadership and industry joint committees. While the checkoff has devoted considerable resources to this effort, the return on the investment has proven, and continues to prove, the value of this initiative. The shoulder clod cuts were the first to be launched and required 10 years to achieve full market penetration. Technomic Inc. ([www.technomic.com](http://www.technomic.com)) reports the 2009 foodservice volume of Flat Iron as 86 million pounds compared to 19 million pounds of Porterhouse and 44 million pounds of T-Bone. In addition, 40 million pounds of Petite Tender and 27 million pounds of Ranch Steak passed through the foodservice channel in 2009. These three cuts are

seen on menus in 20,000 restaurants. Per FreshLook Marketing ([www.freshlookmarketing.com](http://www.freshlookmarketing.com)), they have also enjoyed substantial success at retail with more than 14 million pounds being sold in 9,900 grocery stores in 2009. CattleFax estimates the industry added value of the new shoulder clod cuts to be \$50 to \$70 per head.

Fortunately, their success has made the acceptance and adoption of the new chuck roll and round cuts an easier sell. The chuck roll cuts are rapidly gaining momentum and checkoff teams are optimistic they will achieve similar success as the clod cuts. In addition to the carcass added value of the clod cuts, CattleFax estimates the value of the new chuck roll cuts, when selling nationally, will be \$40 to \$50 per head for the industry.

Six new value-added round cuts, coming from three of five subprimals as opposed to one each for the clod and the chuck roll, were unveiled in the fall of 2010. The number of subprimals involved, and the fact that fourteen muscles are within the round, make communications to the industry more complex than with the previous value cuts. Additionally, while the focus of the work with the clod and chuck roll was to increase the number of steaks available, the current focus with the round is to determine the best use and value for the characteristics of each new cut. As a result, the highest value for each muscle may be in its use by different segments of the industry. For example, five muscles in the top round are sold today as roast beef or London Broil but, if the muscles are separated, the product options range from a fine-dining steak to fajita meat for further processing. The BIG team is currently working with state beef councils to educate packers and further processors to gain support for the new products from the round. The team anticipates their successful distribution through the foodservice chain. In fact, one processor has already started distributing new cuts from the top round and anticipates a noticeable increase in volume in upcoming years. CattleFax estimates the eventual return on this investment in the round to be \$20 to \$30 per head.

This long-term initiative, beginning with the original Muscle Profiling research in the late 1990s to the education effort currently being conducted with packers and processors, illustrates the benefits of The Beef Checkoff to the industry. No single segment or individual company in the beef chain has the incentive or capacity to initiate and implement such a ground-breaking strategy, potentially adding value for all industry players. Beef checkoff Research, Education and Innovation programs span all sectors of the industry from farm to fork. With program integration, REI is able to focus on all aspects of a product development opportunity to increase beef demand. Ultimately, the success of these efforts increases profitability for beef producers and all other participants in the beef chain.

## Product Enhancement Program

Dissemination is a foundation area of the checkoff-funded Product Enhancement research program and the beef quality message is spread through research that is shared online, in print and through face-to-face meetings. Following are examples of program dissemination.

The overall goal of Product Enhancement research is to improve beef quality, consistency, value and demand through tools like the new Beef Cutout Calculator. This web-based tool is an interactive program funded by The Beef Checkoff and developed at Colorado State University to provide an in-depth view of carcass composition and value. The Cutout Calculator can rapidly derive expected cutout yields and values and help develop ideal cutout strategies.



In addition, a new white paper has been developed titled "Beef from Market Cows." This is a technical summary highlighting years of checkoff- and non-checkoff-funded work related to market cow beef quality. Also, three-page project summaries are developed for each Product Enhancement research project. These summaries provide an overview of the critical results achieved in each completed project. Moreover, results from research projects are

shared as abstracts and presentations during scientific meetings and in published, peer-reviewed journal articles. This lends credibility to the results and validates them within the scientific community.

Lastly, Product Enhancement staff conduct cutting demonstrations all around the U.S. in an effort to demonstrate new checkoff-funded cuts from the shoulder clod, chuck roll and round. Demonstrations recently have been held at several industry meetings such as the Research Chef's Association Culinary Expo, the North American Meat Processors Association Annual Meeting and the Southeast Regional Conference of the American Culinary Federation.

## Human Nutrition Research

Beef checkoff-funded human nutrition research continues to stress the importance of beef's contribution to the American diet. Research conducted at USDA's Children's Research Center at Baylor College of Medicine in conjunction with the School of Human Ecology at Louisiana State University, evaluated the diets of over 13,000 adults and nearly 10,000 children and adolescents who participated in the National Health and Nutrition Examination Survey (NHANES) from 1999-2004. The results

show a similar trend in the adult, children and adolescent phases of the study. Overall, results show beef provides significant contributions to important micronutrients such as vitamins B6 and B12, zinc, iron, niacin, phosphorus and potassium with only a 5% contribution of total calories and less than 9% total fat (lean beef less than 4.5%). The average total beef consumption was well within current government guidelines for all age groups. This real-time study provides science-based evidence to justify recommendations to include beef and lean beef as part of an overall healthful diet for Americans of all ages.

In March of 2010, *Red Meat and Processed Meat Consumption and Cancer: a Technical Summary of the Epidemiologic Evidence*, a comprehensive resource on the epidemiologic associations of red meat and processed meat and cancer, was distributed to nutrition scientists, nutrition professionals and nutrition communicators throughout the country. The *Technical Summary* reviews the principles of the science of epidemiology (the study of the occurrence of disease in human populations) and its applicability in critically evaluating the associations between red and processed meat consumption and cancer across the published literature. The authors evaluated more than 500 epidemiologic studies and concluded "The totality of the available scientific evidence is not supportive of an independent association between red meat or processed meat and the types of cancer reported in this *Technical Summary*." Cancer sites included in the evaluation were digestive and gastrointestinal cancers, breast cancer, genitourinary system cancers, gynecologic cancers, lung cancer, lymphohematopoietic cancers, head and neck cancers, endocrine cancers, skin cancer, and brain and central nervous system cancers. In addition, seven manuscripts derived from the *Technical Summary* have undergone the rigorous peer-review process and been published in a variety of leading medical and scientific journals, gaining the attention of thought leaders in the nutrition community. In January 2011, the *Technical Summary* was recognized as an award winner in the Best of NAMA competition by the National Agri-Marketing Association, the nation's largest association for professionals in marketing and agribusiness.



## Safety Research

Dynamic, strategic and impactful are all words that describe the education and outreach initiatives of the checkoff's Safety Research program. Program staff are proactively sharing the latest research findings, bringing industry together to discuss safety challenges and correcting misinformation about the safety of beef. Below are a few examples of the outreach and dissemination programs focused on enhancing the safety of beef products.

To expand on the success of the annual Beef Industry Safety Summit, an event funded in part by The Beef Checkoff, four workshops were held around the country to bring safety information to regional venues. Key updates presented at the Safety Summit as well as information on recently developed resources filled the day-long events. Attendees received information on checkoff-funded safety research, interacted with a HACCP expert and discussed safety challenges with fellow attendees. Participants learned how to access the numerous resources available to help ensure continued progress toward meeting the industry's collective safety goals.



*Way Before the Fork: The Impact of Pre-Harvest Management Programs and Supply Chain Influences on the Control of Shiga Toxin-Producing E. coli Contamination in Beef* was the title of a symposia at the annual meeting of the International Association for Food Protection in Anaheim, CA. The safety research team helped organize and moderate this symposium, and several speakers presented data from checkoff-funded research. This annual event has become the leading meeting concerned with the protection of the worldwide food supply. More than 1,800 of the top industry, academic and government food safety professionals attended, including a broad mix of professionals in quality control, processing operations, regulatory inspections, consulting groups, risk assessment, research and development, microbiological research, plant management, technical services and HACCP management.

## Beef Innovations Group

The Beef Innovations Group (BIG) debuted six new cuts from the beef round at the 2010 Innovative Beef Symposium held August 25 – 26, 2010. The six new cuts listed below include a portfolio of lean steak and roast options suitable for retail and foodservice outlets.

1. **Santa Fe Cut** (*gracilis*) - similar to a flank steak, perfect for fajitas, stir fry or for shredded beef
2. **Round Petite Tender** (*pectineus*) - flavorful, best cut into medallion steaks, offers a restaurant-quality experience on a bed of pasta or a roast for two
3. **San Antonio Steak** (*adductor*) - 1/2-inch lean steak, versatile and cooks fast, works well with a marinade
4. **Tucson Cut** (*semimembranosus*) - lean and versatile, works well thinly sliced as a salad topping and also works with a variety of seasonings and sauces
5. **Braison Cut** (*superficial digital flexor*) - ideal for any braising application and makes a great osso buco or pot roast
6. **Merlot Cut** (*gastrocnemius*) - deep red color, lean and flavorful, perfect for a variety of dishes



Merlot Cut (*gastrocnemius muscle*) in raw and cooked form.



By utilizing checkoff-funded research exploring packaging and product lines, American Foods Group introduced in the spring of 2010 a new line of beef items to merchandise in the freezer

section. These fantastic beef items are priced competitively with chicken and, according to research findings, are in packaging consumers want. The six new packages include the Denver Cut, Rib Eye, Sirloin Steak, Strip Steak, Stew Meat and Cube Steak.

## Culinary Innovations Team

Applied cookery, the scientific development of cooking times for all beef cuts, is critical for a consistent beef-eating experience. Since consumer cooking methods and equipment have changed — as have the fat content in beef and availability of new cuts in the meat case — the culinary team, with funding from The Beef Checkoff, is updating and refining the cookery methods and timings for the various beef cuts. The team completed the grilling portion this summer. In fiscal year 2011 they will take on roasting and pan-broiling.



It's been busy in the Denver Culinary Center! With checkoff funding, the Culinary Innovations Team (CIT) developed 100 new beef recipes this year. Recipes go through numerous tests to "dial-in" the correct flavor profile and are tested with various cooking

appliances such as gas, smooth-top electric and coil electric ranges in order to replicate how consumers throughout the country prepare meals at home. Once a recipe is fully tested, it is written with standardized and simple, easy-to-follow, preparation directions.

The recipes are utilized by checkoff-funded programs such as Veal, Retail and Food Communications. Recipes are featured on Facebook (35,000 fans), Twitter (1,600 followers), Beef So Simple (30,000 subscribers), and BIWFD.com (over 60,000 weekly reach). In addition, CIT recipes are used by a variety of consumer publications such as *Real Simple* and *Family Circle*, by retail on 200 million beef labels in the meat case, and by state beef councils. For more information about the Culinary Innovations Team, go to [www.beefandvealculinary.com](http://www.beefandvealculinary.com).



## Beef Quality Assurance

The Joint Producer Education Committee passed a resolution to allow all interested states to implement a nationally organized, checkoff-funded, online BQA certification program. National staff designed the program

modules, while the certification data in the database is the property of the state beef council or cattlemen's association which receives the reports. This allows states limited by tight resources to fund certification programs. For states with current programs, it offers them the potential to reduce costs.

The BQA team has completed production of several multi-media educational videos to be used for BQA training at the state level. These modules cover topics such as



recordkeeping, correct handling of animal health-care products, stockmanship, the role of the veterinarian, and other fundamentals of BQA. The modules are available to state coordinators and BQA trainers, and on the BQA website, [www.bqa.org](http://www.bqa.org). This expanded use of multi-media can potentially bring tens of thousands of producers to certification meetings or the online training.

## Market Research

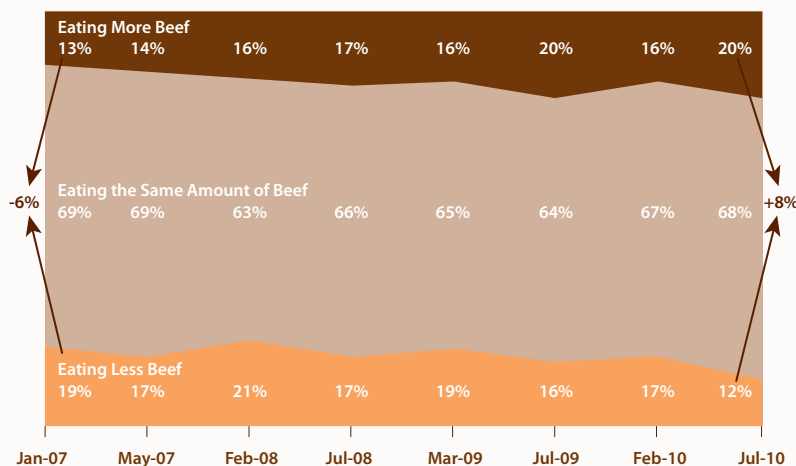
Since 2007, the checkoff-funded Consumer Beef Index has been conducted twice a year to track consumer perceptions about beef. This online study uses a nationally representative sample of 1000 consumers between the ages of 14 and 65. The study:

- Categorizes consumers into four segments based on whether they believe the benefits of beef strongly or somewhat outweigh the negatives, or whether the negatives somewhat or strongly outweigh the positives.
- Tracks 31 variables consumers consider important to choosing a centerpiece dish for dinner, and then

documents beef's performance on these same variables.

- Follows self-reported usage patterns for beef and other major proteins.

Since the beginning of the survey, a larger percentage of consumers have indicated they are "eating less beef" versus the percentage of consumers indicating they are "eating more beef." Certainly, the dietary advice prevalent in the United States in recent years to "eat less red meat" has influenced these results. The July 2009 data and, even more significantly the July 2010 data, are showing an important shift in the consumer response to this question, with a higher percentage of consumers indicating they are "eating more beef" versus the percentage indicating they are "eating less beef." Although perceptions are not necessarily aligned to actual beef-eating behavior, this shifting trend away from an inclination to "eat less beef" is a positive and important indicator for the beef industry.



## Producer Education

The 17th annual Cattlemen's College drew a decade-high attendance of 862 in San Antonio during the 2010 convention. Sponsored by Pfizer Animal Health, this day-long event offered 15 sessions covering all educational outreach efforts. An Applied Reproductive Strategies Workshop was also offered in cooperation with the Beef Reproduction Task Force and Beef Reproduction Leadership Team. This meeting was designed for anyone interested in enhancing beef cattle reproduction, including producers, veterinarians, and AI (artificial insemination) technicians.



For over twenty years, the *Redbook* has provided a handy way for cattlemen to keep better production records and enhance the profitability of their operations. With over 100 pages for recording calving activity, herd health, pasture use and cattle inventory, AI breeding records and updated Quality Assurance summary sheets, the *Redbook* is a must have for any cow/calf operation. In 2010, the *Redbook* had record sales of over 85,000 which were up 12% from the previous year. Projections are on target for 2011 sales.



The Producer Education program is funded by the National Cattlemen's Beef Association.

## REI WEB SITES

**Beef Quality Assurance**  
[www.bqa.org](http://www.bqa.org)

**Cattle Learning Center**  
[www.cattlelearningcenter.org](http://www.cattlelearningcenter.org)

**Beef Research and Knowledge Management**  
[www.beefresearch.org](http://www.beefresearch.org)

**Beef Industry Food Safety Council**  
[www.bifsc.org](http://www.bifsc.org)

**Beef Innovations Group**  
[www.beefinnovationsgroup.com](http://www.beefinnovationsgroup.com)

**Culinary Innovations Team**  
[www.beefandvealculinary.com](http://www.beefandvealculinary.com)

For more information, contact  
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