

# The Adventures of the Round

*Last year, Beef Innovations Group embarked on an exciting journey to seek out a hidden treasure – from the beef round, that is. It is now time to share the discoveries from the time the ship sailed, as well as the goals for when the ship returns to shore. Read on for more about the adventures of the round!*

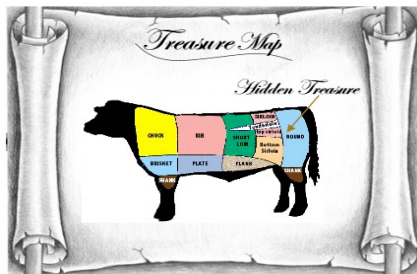


Extending work from the Beef Checkoff-funded Muscle Profiling Project, many successful new cuts have been uncovered, including the Petite Tender, the Ranch Steak, the Flat Iron Steak, as well as five successful new cuts

from the chuck roll. The third, and most recent phase of the project was to maximize value of the beef round. The chuck and the round combined make up about 50% of the weight of the carcass, but only contribute 25% of the value. Of this amount, the round makes up 23% of the beef carcass. One of the biggest attributes of the round is that its large size allows for many cuts to be generated. In addition, many raw material applications may qualify as lean.

## Review of Treasure Map

*Before setting sail, it is always wise to study a map to determine how to reach the desired destination.*



The first step of this project was to take a step back and look at where the round stands today. To achieve this, information was gathered from retailers, processors and foodservice operators on how they currently utilize the round. Below is a recap of the findings:

**Top Round:** The top round is currently sold and used by processors as roast beef and by retailers as a steak that is often featured, due to its size and consumer demand.

**Bottom Round:** The bottom round is mostly used by processors as roast beef or corned beef. The bottom round is often featured by retailers and is commonly used in cube steak applications.

**Heel:** The majority of heels are processed into groundround or ground trimmings. There is a huge opportunity to add value to this portion of the round.

**Knuckle:** Past work on under-utilized cuts promoted two consumer friendly cuts— the Beef Round (Sirloin) Tip Center Steak and Roast, the most tender in the round, as well as the Beef Round (Sirloin) Tip Side Steak. These cuts have been merchandised by retailers, but not by processors or foodservice operators to date. There is a current opportunity to add value to the knuckle by removing the medial muscles that do not perform well as a steak. This item also has potential as an attractive raw material for processors.

## Gathering of Explorers

*The next step in the journey involved gathering all of the explorers together to discover what they were doing on the high seas of the round.*

A “Meat Geek” Summit was held in Dallas, Texas in December 2007, of which gathered leading meat scientists and industry experts to discuss the round. The goal of the summit was to identify short to mid-range opportunities to add value to the round, as well as identifying any critical technical roadblocks. “This exciting meeting let us examine the round from every possible angle,” said Tony Mata, round technical lead for the Beef Innovations Group. “Although the muscles of the round pose significant challenges, they also offer substantial opportunities. The collaboration and input paved the way for future round development.” Opportunities were ranked based on feasibility, resource needs and return on investment. The group developed future goals and recommendations using the Beef Innovation Group’s new product development process.

In addition, the Beef Innovations Group invited a variety of industry representatives to a June 2008 Beef Checkoff-funded meeting to further brainstorm and identify the opportunities with the round. The meeting was hosted by Oklahoma State University and was attended by retailers, processors, food distributors and others. As expected, the outcome of the meeting validated the collaboration strategy. The group identified several muscles from the top round, bottom round and heel as having significant potential for value-added use.

## Below the Deck Work

*In order to discover the hidden treasure, it is necessary to put forth your best effort and complete all duties below deck.*

Beef Checkoff-funded yield and time analyses were conducted at Oklahoma State University and NCBA. The team analyzed URMIS 158 round primals from twenty-nine 700 - 800 pound cattle. Choice and select grades were chosen for this study. The round was fabricated into three Subprimals - 168 Beef Round, Top Inside, 170 Beef Round, Bottom (Gooseneck), 167 Beef Round, Knuckle. They were further processed, and yield and weight data were collected as follows.

Subprimals	Further Processing/ Yield Data Collected
Top Round	169A Beef Round COSMO (cap off side muscle off). Data were collected on the round cap (Gracilis) as well as the soft side muscles (Pectineus and Sartoris).
Gooseneck	171 Bottom Round Flat “Log”. The Round Log will be promoted to the trade as a 171D Beef Round, Outside Round, Side Muscle Removed (IM) (Biceps Femoris)
	Flat Triangle is the Ishiactic head portion of the bottom round flat. This item will be promoted to the trade as 171E Beef Round, Outside Round, Side Roast (IM), (Biceps Femoris Ishiactic head)
	171C Beef Round, Eye of Round (IM), collected as a single muscle. This item is well established in the trade.
	171F Beef Round, Bottom Round, Heel
Round Knuckle	167 Beef Round, Knuckle

### Hidden Treasure Discovery

*By staying on the right path, hard work pays off with the discovery of a hidden treasure.*

### Authenticating the Treasure

*Before sharing your treasure with other shipmates, it is wise to verify that the gold is in fact, real.*

With this research, several muscles of the round have been identified as having potential for value-added use. Through exploration of these muscles, several promising applications have resulted.

#### **Beef Top Round Cap (Gracilis):**

The Gracilis is currently under review and further development as a possible fajita-style application. In addition, the Gracilis has potential as special trim or cube steak. BIG will be studying the color and quality performance of the Gracilis as a single muscle option for cube steak. Processors and retailers may find value in this muscle for cube steak or country-fried steak.

#### **Beef Round, Top (Inside), Soft Side (IM) Pectineus:**

The Pectineus muscle is similar in shape and size to the shoulder tender 114F Teres Major muscle. Given the visual characteristics and shear force values, a team of culinary experts further evaluated this muscle. The results showed that this item performs similarly to the beef shoulder petite tender. Further consumer testing is forthcoming.

#### **171D Beef Round, Outside Round, Side Muscle Removed (IM) (Biceps Femoris)**

The Round Log is one of the new items the BIG team is exploring for cube steak and processed steaks. By removing an unfavorable section of the muscle (Biceps Femoris Ishiactic head) and heavy opaque connective tissue, the Round Log will be an active raw material source for cube "steak-ers". There are potential opportunities for a "cook in the bag" roast beef or precooked steaks. A color and hold test will soon be conducted on this muscle for cube steak.

#### **171E Beef Round, Outside Round, Side Roast (IM), (Biceps Femoris Ishiactic head)**

This muscle is separated from the XT Flat Log along the natural fat seam. A product evaluation for this muscle is underway as a cooked application for shredded beef as well as raw material source for cube steak. A color and hold test for cube steak is currently pending.

#### **171F Beef Round, Bottom Round, Heel Gastrocnemius and the Superficial Digital Flexor:**

A portion of this muscle, known as Gastrocnemius, performs well as a steak and lends itself to a flank style application. NCBA culinary team will evaluate as steak, and in flank and pinwheel applications. The other portion, Superficial Digital Flexor, is a small cigar shaped muscle is surrounded by the Gastrocnemius. There are potential opportunities to promote this as an export item. Both Gastrocnemius and the Superficial Digital Flexor are being explored as a boneless osso buco prepared via a "cook in the bag" application.

BIG is currently in the planning stages of sensory testing for the round. Culinary work indicated a comparable performance between the Gracilis and skirt meat. Sensory work will be conducted to confirm if consumers agree. Another comparison that sensory testing will confirm is the Pectineus and the Petite Tender. The Petite Tender will be prepared in its most common method to validate this test. In addition, sensory testing on the Gastrocnemius will take place, either as a steak or flank augmentation. Further information on sensory work for the round is still being developed, and testing is slated for January 2009.

### Implications to Shipmates

*It is always more delightful to share the treasure you discovered with others!*

As a result of the Muscle Profiling Study, several muscles from the top round, bottom round and heel have been identified as having significant potential for value-added use. These muscles have shown to have several promising applications, including fajita meat, steak, cube steak as well as roast beef. Further work is being conducted to determine other possibilities, including premium special trim and determining if applications will work for both foodservice and retail. "The work from the round and its discoveries will add another \$20 - \$30 per head to producers when new cuts enter the market place", said Ellen Gibson, executive director of the checkoff-funded new-product initiatives. "The Beef Checkoff-funded work is critical to increase beef demand and also add variety and more choices of beef products for consumers."

The team has already uncovered many hidden gems cut from other under-utilized muscles, and the round is no exception. There is much opportunity to successfully market these cuts for their exceptional attributes. "The industry is in need of more options and flexibility in their beef offerings because of the changing economy and consumer," said Jim Ethridge, director of new product industry partnerships. "The new cuts identified in the chuck and the current work on the round is a key part of providing the solution to this need."

For further information on the Round Muscle Profiling project, please contact the appropriate person below.

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### Voyage Timeline

