



State 4-H Beef Cooking Demonstration Competition

Dear 4-H member,

Thanks for your interest in the Missouri 4-H Beef Cooking Demonstrations. The following resource packet provides information to help you prepare for your local and state contest. Be sure to check us out online at www.mobeef.org for additional beef resources! We'd also like you to find us on Facebook at www.facebook.com/BeefCouncil, where you can stay up-to-date with the happenings of the beef checkoff in the state of Missouri.

Thanks for participating,

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Cuts of Beef

Whether it's a steak or a roast, ground beef or ribs, beef is a great nutritious choice for dinner.

The beef industry has paid attention to consumers' needs by developing premium value cuts like flat iron steak, ranch steak and others. [Value cuts](#) are perfect for anyone looking for low fat, flavorful, and affordable beef products with the great taste people crave.

These products are a result of new cutting methods whereby the most tender sections of larger roasts are repurposed into steak meat. Affordable and delicious, these steaks are already trimmed of fat and ready to cook. They're the ideal solution for family meals and entertaining.

Understanding Beef Labels

Do you know the wealth of information that's listed on the beef packages in your supermarket? It's all there if you just take a few moments to take a closer look at the small print. The meat package label identifies the kind of beef, the wholesale cut name and the retail cut name. It also includes the weight, price per pound, total price, sell-by date and safe handling instructions.

Labeling is evolving, and you may see labels that include a grade, nutrition information and recommended preparation information.

Other terms you may see on labels include:

- **Branded Beef Names:** More beef in the supermarket is marketed with a brand name (EXAMPLE: Certified Angus Beef) that carries with it a promise to the consumer for attributes such as consistency in taste, tenderness, juiciness and flavor. Every branded beef program is unique, but most have specifications regarding grade, aging and size.
- **Grain-fed:** Grain-fed beef is the most widely produced type of beef in the United States. Grain-fed cattle spend most of their lives eating grass in pastures, and then move on to a feedlot where they eat a high-energy grain diet for three to six months. Research shows most Americans generally prefer the taste of grain-fed beef because of its tenderness and flavor-enhancing marbling.
- **Grass-finished:** All cattle spend the majority of their lives eating grass in pastures. However, grass-finished beef (sometimes labeled as grass-fed beef) comes from cattle that have been raised on pasture their entire lives. Grass-finished beef is often described as having a distinctly different taste.

- **Natural:** According to the United States Department of Agriculture (USDA) definition of “natural” as “minimally processed containing no additives,” all fresh beef is natural.
- **Organic:** Certified organic beef must meet stringent USDA regulations and carry the USDA Organic Seal. Both grass-finished and grain-fed beef can qualify as organic.

Nutrition

Today’s beef simply is not your father’s steak. The beef Americans love is leaner than ever before and good for you too.

Twenty-nine cuts of beef meet government guidelines for lean, including consumer favorites like tenderloin, sirloin and 95% lean ground beef. These cuts have less than 10 grams of total fat, 4.5 grams or less of saturated fat and less than 95 milligrams of cholesterol per 3-ounce serving. Additionally, 20 of the 29 lean beef cuts have, on average, only 1 more gram of saturated fat than a skinless chicken breast per 3-ounce serving.

Beef is a premier naturally nutrient-rich food, helping you get more nutrition from your calories. Beef has eight times more vitamin B12, six times more zinc and two and a half times more iron than a skinless chicken breast.

If you are looking for ways to follow the 2005 Dietary Guidelines for Americans and MyPyramid, “The Healthy Beef Cookbook” can help. The book compiles more than 130 delicious recipes, nutrition information and cooking techniques to create tender, moist, flavorful beef dishes every time. The cookbook’s recipes were created to help you get more essential nutrients in every meal — while enjoying your favorite protein, beef.

Handling and Storage

- When shopping, pick up beef just before checking out. Only put refrigerated beef in your cart if it’s very cold to the touch. Frozen beef should be solid as a rock. If it will take longer than 30 minutes to get your purchase home, keep your beef in a cooler.
- Remember to check the “sell by” date to make sure it hasn’t expired before you buy.
- For beef stored in the refrigerator, be sure to follow the “use by” information on package labels. If you can’t remember when a food item was placed there, throw it out.
- Use refrigerated beef steaks and roasts within 3 to 5 days of purchase. All fresh ground beef should be used within 1 to 2 days of purchase.
- If fresh beef will not be used before the expiration date, place tightly wrapped beef in your freezer on the bottom shelf. You can freeze beef in its original transparent wrap up to two weeks. For longer storage, wrap in heavy-duty aluminum foil or place in plastic freezer bags. Remove as much air as possible.

- But before putting any beef in the freezer, label each package with the date, name of beef cut and weight or number of servings. This will help you follow the “first in, first out” rule: use the beef with the earliest date first.
- Use a refrigerator and freezer thermometer to ensure that your refrigerator is at or below 40°F, and your freezer is at or below 0°F.
- In the refrigerator, place raw or thawing beef in a container or on a dish that will prevent juices from dripping onto other foods.

Preparation and Cooking

- Use a separate cutting board when prepping raw beef. Wash the board thoroughly in hot, soapy water using the same board for any other ingredients.
- Never put cooked beef back on the same plate you used for raw meat, and make sure to use clean utensils as well.
- Don’t leave cooked food sitting out at room temperature for more than two hours.
- Use an ovenproof or instant-read thermometer to prevent over- or undercooking. Refer to safe cooking temperatures below.
- Roast meats at oven temperatures of 325°F or above.

Safe Cooking Temperatures	
Product	Minimum internal temperature (°F) for safety and quality
Fresh Beef, Veal, Lamb	
Ground meats	160°
Whole cuts (roasts and steaks, etc.)	145°
Fresh Pork (all cuts, including ground)	160°
Poultry (chicken, turkey, duck)	165°
Eggs	Yolk and white are firm
Egg dishes	160°
Fin Fish	145°
Shellfish	Until firm, opaque
Leftovers, casseroles	165°

Serving and Leftovers

- Keep cold foods cold and hot foods hot. If you’re serving a buffet, you can keep cold foods on ice to maintain a temperature below 40°F, and keep hot foods on a hot plate or sterno flame to ensure internal temperatures stay above 140°F.

- As soon as your meal is over or within two hours (whichever comes first), place leftover food in the refrigerator. Allow hot or warm leftovers to cool in the fridge, not at room temperature.
- Divide large amounts of leftovers into small portions. The smaller size will not only be convenient for leftovers, but shallow containers will allow for quick chilling.
- Any leftovers should be covered, refrigerate and eaten within 3 to 4 days – or frozen up to 3 months. Reheat to 165°F throughout. Stir foods during reheating to be sure that all the food reaches the appropriate temperature.
- When in doubt, throw it out. Never taste leftover food that looks or smells strange.

Choosing and Using a Meat Thermometer



When it comes to serving a perfect burger, professional grill masters leave nothing to chance. Instead, they reach for an instant-read meat thermometer to ensure ground beef reaches an internal temperature of 160°.

Did you know...

...that using an instant read meat thermometer is the **only reliable way** to ensure that your ground beef is cooked to a safe and savory 160°?

Choosing Your Meat Thermometer

When choosing your meat thermometer, keep a couple simple things in mind:

- Make sure that the thermometer is **designed for meat and poultry** — and not for candy or other foods.
- Instant-read meat thermometers which **have a dial or digital readout** are the best option to use for ground beef because they give an accurate temperature reading much quicker than an oven-proof meat thermometer.

Using Your Meat Thermometer

An instant-read meat thermometer must be inserted properly to accurately read the temperature of your burger. Remember:

- Instant-read thermometers **cannot be used in the oven** — insert them into your ground beef after you've removed it from the oven.
- The sensing area of thermometers is ½ inch to 2 inches long — this area must be **completely immersed** in the deepest area of the food.
- When cooking or grilling ground beef, stick your meat thermometer into the **thickest area of the beef**, inserting sideways.
- Most meat thermometers are accurate to within plus or minus 1 to 2° F. Always **check cooked ground beef in several places** to ensure food safety.

- As with any cooking utensil, always **sanitize your meat thermometer** with hot soapy water after each use. Do not place it in the dishwasher.

So fire up the grill and get those meat thermometers ready for a safe and savory grilling season.

Refrigerator And Freezer Storage Guidelines		
<i>Recommended Storage Times for Maximum Quality</i>		
Beef Cut	Refrigerator (35°F to 40°F)	Freezer (0°F or below)
FRESH BEEF		
Steaks, Roasts	3 to 4 days	6 to 12 months
Beef for Stew, Kabobs or Stir-Fry	2 to 3 days	6 to 12 months
Ground Beef	1 to 2 days	3 to 4 months
LEFTOVER COOKED BEEF		
All	3 to 4 days	2 to 3 months
CURED/SMOKED/READY-TO-SERVE BEEF		
Corned Beef, ready-to-cook	1 week	2 weeks
Frankfurters, Deli Meats	3 to 5 days	1 to 2 months
Sausage, smoked	1 week	Not recommended
Sausage, dry and semi-dry, <i>unsliced</i>	2 to 3 weeks	Not recommended
Defrosting Guidelines		
<i>Always defrost beef in the refrigerator, never at room temperature. Place frozen package on a plate or tray to catch any juices and place in the refrigerator according to chart.</i>		
Beef Cut	Thickness	Approximate Refrigeration Time (at 35°F to 40°F)
Steaks		
Ground Beef*	1/2 to 3/4 inch	12 hours
Beef for Stew, Kabob or Stir-Fry	1 to 1-1/2 inches	24 hours
Small Roasts	Varies	3 to 5 hours per pound
Thin Pot Roasts		
Large Roasts	Varies	4 to 7 hours per pound
Thick Pot Roasts		

*Cook as soon as possible after defrosting.

Missouri Beef Facts

- Missouri is **FIRST** in purebred cattle production.
- Missouri is the third leading state in the nation in the number of cow-calf pairs (behind Texas, and Oklahoma).
- Missouri ranks sixth among all states in total cattle numbers with **4.45 million**
- Missouri has nearly **68,000 farms** with beef or dairy cattle.
 - Missouri has more than 107,000 farms total, so that means more than half have cattle.
- The average beef cow herd size in Missouri is **36**.
 - The average dairy herd size is **41**.
- The top counties for **beef cow numbers** are:
 - Polk
 - Barry
 - Texas
 - Lawrence
 - Howell
 - Bates
 - Johnson
 - Newton
 - Nodaway
 - Dade
 - Greene
- Each year Missouri's beef industry adds **\$1.5 billion** to the state's economy.
- Missouri has approximately 12 million acres of **pastureland**.
- Missouri has more than 4 million acres of **hay production**.

Beef Trivia

Beef is known for what three nutrients?

Zinc, Iron, and Protein

What year was the Missouri Cattlemens Association founded?

1911

What is the name of the restaurant operated by the Missouri Cattlemens Association at the Missouri State Fair?

The Beef House

What are the three quality grades of beef?

Prime, choice and select

What is the more popular name for the tenderloin steak?

Filet mignon

The T-bone steak is actually these two popular grilling steaks, connected by a bone.

The strip (top loin) and tenderloin.

What is the annual sales of the state's beef cattle and calves in Missouri?

\$1 billion

What rank is Missouri in cow calf numbers?

Third

How many farms in Missouri have beef or dairy cattle?

67,000

What is the average number of cattle on Missouri farms?

36

How many cuts of beef are identified by the USDA as lean?

29

Hamburger should be grilled to what internal temperature?

160 degrees

What is the dollar value of the health, clothing and nutrition produced from byproducts of a 1,000 pound steer?

\$96

The chuck and round make up what percentage of the beef carcass?

53%

How many tablespoons of peanut butter would you have to eat to get the same amount of protein available in three ounces of lean beef?

7 tablespoons (680 calories)

A three ounce serving of one of the 29 lean cuts of beef has how many more grams of fat than a skinless chicken breast?

1 gram

What percentage of American adults have dietary protein intakes below the current Recommended Dietary Allowance? Separate answer by men and women.

19 percent of adult men

31 percent of adult women

What percent of U.S. farms are owned by individuals, family partnerships or family corporations?

98%

Agriculture employs what percent of the U.S. workforce?

20% or 21 million people

How many acres is the average Missouri farm?

269 acres

How many quarter pound hamburgers can you get from one steer?

720 quarter pound hamburger patties

How many acres of the total U.S. land surface is used for rangeland, pasture and forage?

About a billion acres, or 55 percent

Revenues generated from cattle production contribute how many dollars to Missouri's annual economy?

1.5 billion dollars

How many essential nutrients are in a lean serving of beef?

10 essential nutrients like iron, zinc and B vitamins

A lean serving of beef has how many grams of protein?

20 grams of protein per serving

What mineral supplied by beef is most likely to be missing from American diets?

Iron

Small flecks of fat found in lean red beef are an indication that the beef should be tender, juicy and flavorful. What are these flecks called?

A: The small flecks of fat are called marbling. The higher the grade of beef, the more marbling you will find.

A 1,000-pound steer will provide about how many pounds of edible meat?

430 pounds

How much beef is sold as ground beef?

Between 40 and 45% of all beef sold today is in a ground form

Who brought the first cattle to the Western Hemisphere?

Christopher Columbus brought cattle on his second voyage in 1494.

What mineral found in beef promotes growth and development, keenness of taste, good appetite and healthy skin?

Zinc.

Humans need eight essential amino acids each day. How many of these are provided by a serving of beef?

Beef provides all of the eight essential amino acids that our bodies need.

Which segment of American agriculture is the largest?

The cattle industry.

How many different breeds of beef cattle can be found in the U.S.?

There are over 70 different beef breeds in the United States today.

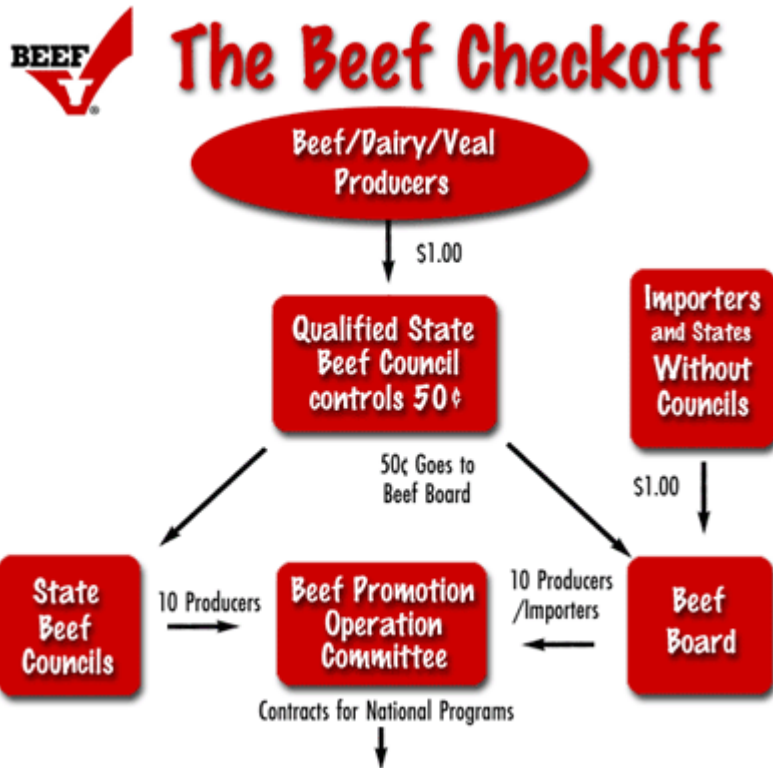
What important natural drug used by diabetics can be made from beef animals?

Insulin.

Beef Quiz

1. What are the key words to look for when choosing lean cuts of beef?
 - A. Ground and steak
 - B. Chuck and rib
 - C. Flank and loin
 - D. Round and loin**
2. Beef has this much more iron than a skinless chicken breast of the same size.
 - A. 8 times more
 - B. 12 times more
 - C. 2 times more
 - D. 3 times more**
3. Of the fat in beef, this percentage is monounsaturated.
 - A. 50%**
 - B. 1%
 - C. 12%
 - D. 20%
4. For food safety, steaks and roasts should be cooked to what internal temperature?
 - A. 145 degrees**
 - B. 160 degrees
 - C. 175 degrees
 - D. Until it looks done
5. The USDA MyPyramid recommends these cooking methods for meat.
 - A. Fry it or microwave it
 - B. Bake it, broil it, or grill it**
 - C. Fry and bake it
 - D. Microwave it and grill it
6. **True** or False: 20 of the 29 cuts of beef have, on average just one more gram of saturated fat than a skinless chicken breast of the same size.
10. True or **False**: I shouldn't eat beef if I need to lower my cholesterol.

What is the Beef Checkoff?



States may invest a portion of their 50 cents in national programs and then elect producers to serve on the Federation of State Beef Councils Division of the NCBA Board to oversee program implementation.

Each year your Beef Checkoff supports many events and activities around the state of Missouri. Please visit our [Calendar of Events](#) to learn more.

- Advertising—"Beef. It's What's for Dinner."
- Funding Research about beef's tenderness and consumer appeal.
- Partnerships with key health professionals such as the Missouri Dietetic Association
- Partnerships with major grocery chains, especially during Summer Grilling and Holiday Roast seasons.
- Media Relations—television appearances and radio broadcasts discussing beef.
- Educational Activities—checkoff funded classroom materials are in about 90% of Missouri school districts.
- The "Beef Showcase" at the Missouri State Fair.

The Beef Promotion and Research Act outlines the specific responsibilities of the organizations that comprise the checkoff structure.

- **Beef Board:** Created by the Beef Promotion and Research Act to administer the beef checkoff program, the Beef Board consists of 111 members nominated by state producer organizations and importers, all of who are then appointed by the Secretary of Agriculture based on the number of cattle in their state. Duties include certification of state beef councils, evaluation of programs, annual budget approval and overseeing the collection of the \$1-per-head beef checkoff. Administrative costs for the Beef Board are capped at 5 percent. The Beef Board selects ten of its members to serve on the Operating Committee.
- **State Beef Councils:** State councils collect the \$1-per-head checkoff and retain control of 50 cents of every dollar to conduct and implement programs in each state that are consistent with the Beef Promotion and Research Act. The councils may invest a portion of their 50 cents in national and international programs. Together, as a federation, states select ten members to serve on the operating committee.
- **Operating Committee:** Also created by the Beef Promotion and Research Act, the Operating Committee reviews and approves national checkoff programs and contracts with national industry-governed organizations, such as National Cattlemen’s Beef Association, to implement programs. Through the Operating Committee, the entire dollar comes together in a coordinated state/national program. Checkoff programs are conducted on a cost-recovery basis. Contractors may not profit from the work they do on behalf of the beef checkoff.

The contractors that receive checkoff dollars from the Operating Committee to carry out checkoff programs are:

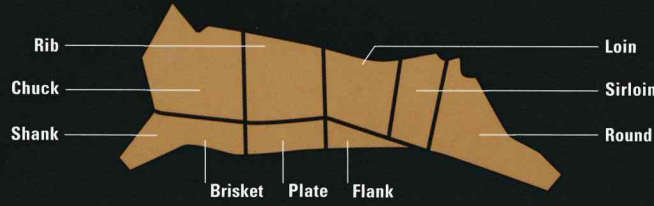
- **National Cattlemen’s Beef Association (www.beef.org):** This group is the primary contractor for checkoff programs. It was created in 1996 by merging functions of the National Cattlemen’s Association and the Beef Industry Council of the National Livestock and Meat Board. The membership-funded policy efforts of the NCBA remain distinct and separate from the checkoff-funded programs. By law, no checkoff dollars can be used for lobbying.
- **U.S. Meat Export Federation (www.usmef.org):** This is a non-profit trade association working to identify and develop international markets for U.S. beef, veal and other red meats. Headquartered in Denver, Colo., USMEF maintains a global network of 13 foreign offices and international representatives around the world. It conducts programs with funds from the beef checkoff, other commodity checkoffs, government Market Access Program funds, and membership dues.
- **American National CattleWomen (www.ancw.org):** ANCW’s primary focus is promotion and consumer education of beef as a safe and nutritious food and the production of beef cattle as an industry. ANCW is the sponsor and project leader of the National Beef Cook-Off in cooperation with NCBA and the Beef Board.

Beef Made Easy[®]































Retail Beef Cuts and Recommended Cooking Methods



IT'S WHAT'S FOR DINNER.[®]



Chuck

 CHUCK 7-BONE POT ROAST 	 CHUCK POT ROAST Boneless 	 CHUCK STEAK Boneless  	 CHUCK EYE STEAK Boneless  	 SHOULDER TOP BLADE STEAK  	 SHOULDER TOP BLADE STEAK Flat Iron  
 SHOULDER POT ROAST * Boneless 	 SHOULDER STEAK * Boneless  	 SHOULDER CENTER * Ranch Steak 	 SHOULDER PETITE TENDER *  	 SHOULDER PETITE TENDER MEDALLIONS * 	 BONELESS SHORT RIBS 

Rib

 RIB ROAST 	 RIB STEAK 	 RIBEYE ROAST Boneless 	 RIBEYE STEAK Boneless  	 BACK RIBS 
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






















Loin

 PORTERHOUSE STEAK  	 T-BONE STEAK *  	 TOP LOIN STEAK * Bone-in  	 TOP LOIN STEAK * Boneless  	 TENDERLOIN ROAST * 	 TENDERLOIN STEAK *  
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Sirloin

 TRI-TIP ROAST *  	 TRI-TIP STEAK * 	 TOP SIRLOIN STEAK * Boneless 
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Round

 TOP ROUND STEAK *  	 BOTTOM ROUND ROAST * 	 BOTTOM ROUND STEAK * Western Griller  	 EYE ROUND ROAST * 	 EYE ROUND STEAK *  
 ROUND TIP ROAST * 	 ROUND TIP STEAK * 	 SIRLOIN TIP CENTER ROAST * 	 SIRLOIN TIP CENTER STEAK *  	 SIRLOIN TIP SIDE STEAK *  

Key to Recommended Cooking Methods

-  Skillet
-  Grill or Broil
-  Marinate & Grill or Broil
-  Stir-Fry
-  Roast
-  Stew
-  Braise
-  Pot Roast

Shank and Brisket

 SHANK CROSS CUT * 	 BRISKET FLAT CUT * 
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Plate and Flank

 SKIRT STEAK 	 FLANK STEAK * 
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Other

 GROUND BEEF  	 CUBED STEAK 	 BEEF FOR STEW 	 BEEF FOR KABOBS 	 BEEF FOR STIR-FRY OR FAJITAS 
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*These cuts meet government guidelines for "lean" and are based on cooked servings with visible fat trimmed.

Lean is defined as less than 10 grams of total fat, 4.5 grams of saturated fat, and less than 95 milligrams of cholesterol per serving and per 100 grams (3.5 oz).