

Beef



Angus



Texas Longhorn



Charolais



Hereford



Highland



Did You Know

- Cattle are ruminants, meaning their stomachs have four chambers, which allow them to digest grasses. Typically cattle are raised in pastures until they are at least one year old. Then they are sold and transported for "finishing" which means they are usually fed a grain-based diet to increase weight and fat marbling. Some cattle are raised entirely on pasture or are "finished" on grass and are called grassfed or grass-finished. This method usually produces leaner meat, which means less fat.
- Montana is home to more cattle than people and ranks 6th in the nation for the number of beef cattle.
- The first beef cattle arrived in the United States via Mexico in the 1500s, but more arrived in the early 1600s. In Virginia in 1620 about 500 cows roamed the fields, and less than a decade later the population increased to 30,000 bovines!
- While only about half of each animal is used for beef, the entire animal is important to the cattle industry. The parts of the animal we do not use for beef are called by-products, which are used to make many products including soap, pharmaceuticals, leather, glue, and tires.

Selection

The flavor, tenderness, nutritional value, and fat content of beef depend on many factors including the breed, age of the animal, feed, cut, and cooking techniques. A less expensive cut can be tender and delicious when cooked using proper techniques such as tenderizing, marinating, and cooking slowly for longer times. To reduce fat content, select lean varieties and cuts.

Montana schools and institutions can purchase beef that has been slaughtered and processed in either an official Montana Department of Livestock-inspected (state-inspected) or a USDA-inspected (federally-inspected) facility. Schools and institutions

cannot purchase beef slaughtered in a custom-exempt facility. For a list of state-inspected facilities visit the Montana Department of Livestock's website (liv.mt.gov/_docs/MI/11-5-2021---State-Plant-List-for-Public.pdf) and the USDA's website (fsis.usda.gov/wps/portal/fsis/topics/inspection/mpi-directory) for federally-inspected facilities. For stories on how schools are successfully serving local beef for school meals, visit: montana.edu/mtfarmtoschool/beeftoschool.html.

Storage

Keep beef refrigerated below 40°F or frozen at or below 0°F. Ground beef can be refrigerated for one to two days or frozen for three to four months. Steaks and roasts can be refrigerated for three to five days or frozen for six to twelve months.

Cooking

Generally, cooking time is dependent on type of cut, size of meat and desired doneness. For a complete guide to cooking beef, see *Confident Cooking with Beef* (beefretail.org/CMDocs/BeefRetail/customerhandouts/ConfidentCookingwithBeef.pdf)

Broil. Preheat oven for 10 minutes. Add seasonings, if desired. Place on rack of broiler pan and put in oven 2-4 inches below heat element. Turn once and cook 8-30 minutes. Ideal for kabobs, ground beef patties or steaks.

Brown. Brown and cook ground beef in a steam-jacketed kettle until internal temperature reaches 165°F. Prepare sauces, chili, and other items containing thawed pre-cooked crumbles in a steam-jacketed kettle.

Cook Safely. Cook to an internal temperature of 145°F for steaks and roasts; 165°F for ground beef. Questions? Visit: foodsafety.gov/keep-food-safe

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Beef Rock & Roll Wraps

HACCP Process: _____ 1 – No Cook 2 – Cook & Same Day Serve _____ 3 – Cook, Cool, Reheat, Serve _____ 4 – SOP Controlled

Ingredients	6 Servings	25 Servings	Directions
Ground beef (80% lean)	1 lb	4 lbs	<ol style="list-style-type: none"> 1. Brown ground beef, breaking into 1/2-inch crumbles and stirring occasionally until internal temperature is 165°F*. Remove drippings. *Cooking instructions are for fresh or thoroughly thawed ground beef. Ground beef should be cooked to an internal temperature of 165°F. Color is not a reliable indicator of ground beef doneness. 2. Stir in water, quinoa, dry ranch mix, and pepper. Bring to a boil; reduce heat. Cook, covered, until quinoa is tender, stirring occasionally. (Not all liquid will be absorbed.) 3. Add slaw; increase heat to medium. Cook, uncovered, until slaw is crisp-tender, stirring occasionally. CCP: Heat to 165°F for 15 seconds. CCP: Hold hot for service at 135°F for up to 2 hours. 4. Portion 1 1/2 cups (three #8 scoops) beef mixture onto 1 large tortilla. Add toppings, as desired. Fold over sides of tortilla and roll-up to enclose filling. Cut wrap diagonally in half for two servings.
Water	1 1/2 cups	6 cups	
Uncooked quinoa	1/2 cup	2 cups	
Dry ranch dressing mix	1 Tbsp	1/4 cup	
Packaged cabbage coleslaw or broccoli slaw	1/2 lb	2 lbs	
Large whole wheat or spinach tortillas (10-13 inch diameter)	3	13	
Toppings (optional): Sliced or chopped red apples, sliced or chopped red bell peppers, sliced or chopped cucumbers, sliced toasted almonds	As needed	As needed	

Serving Size	_____ 1/2 wrap _____	Pan Size	_____ 12" x 20" x 2 1/2" _____	Yield	_____ 6, 25 servings _____
Oven Temperature & Baking Time:	Conventional _____	Temperature _____	Minutes _____	Convection _____	Temperature _____ Minutes _____

Meal Component Fulfillment (Based on Serving Size) 1 Serving Provides: • 2 oz meat/meat alternate • 3.5 oz grain • 1/2 cup vegetables

Nutrition Analysis : Serving Size: <u>1/2 wrap</u>					
_____ 319 _____	Calories (kcal)	_____ 4 _____	Saturated Fat (g)	_____ 3 _____	Iron (mg)
_____ 21 _____	Protein (g)	_____ 51 _____	Calories from Total Fat (%)	_____ 88 _____	Calcium (mg)
_____ 29 _____	Carbohydrate (g)	_____ 10 _____	Vitamin A (IU)	_____ 688 _____	Sodium (mg)
_____ 12 _____	Total Fat (g)	_____ 29 _____	Vitamin C (mg)	_____ 5 _____	Dietary Fiber (g)

Notes:

- Wraps can also be prepared using small whole wheat or spinach tortillas (6 to 7 inch diameter). Portion 3/4 cup (three #16 scoops) beef mixture onto 1 small tortilla per serving. Add toppings, as desired. Roll up.
- Wraps can also be prepared using Romaine lettuce leaves. Divide 3/4 cup (three #16 scoops) beef mixture between 2 small lettuce leaves per serving. Add toppings, as desired. Roll up.

Source: National Cattlemen's Beef Association (www.beeffoodservice.com/recipe.aspx?id=6093)

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Chop. Slice or chop steaks or ground beef, cook, and add to salads for added protein.

Grill. Add seasonings, if desired. Place on grill over medium heat. Cover and grill for desired tenderness, turning once. Ideal for kabobs, ground beef patties or steaks.

Heat Pre-cooked Patties. Convection Oven. Place patties on sheet pans lined with parchment paper. Bake in a preheated convection oven at 300°F for 10-12 minutes, rotate the pan and then cook for an additional 10-12 minutes until the internal temperature reaches 165°F. Rotating Oven. Stack vertical rows of patties in 4 inch full pans with a little water for moisture. Cover in food film and foil and bake in rotating ovens at 350°F for 45 minutes or until reaching an internal temp of 165°F.

Pan-Fry/Sauté. Add seasonings, if desired. Use 1/2 inch thick or less beef cuts. Heat pan to medium heat, add oil to coat bottom of pan, add beef. Turn beef occasionally and cook 3-4 minutes or to desired doneness. Ideal for steaks or ground beef patties.

Pot Roast/Braise. Heat pan to medium heat, add oil to coat bottom of pan, add beef, and brown sides. Add seasonings, if desired. Place beef in stock pot and add 1/2 to 2 cups of liquid, such as broth, water or juice. Cover and simmer on low heat on the stovetop or in a 325°F oven. Cook for 1-3 hours. Ideal for large, less tender cuts of beef, such as short ribs, pot roasts and briskets.

Roast. Preheat oven to 325°F or 425°F. Place roast fat side up on a rack in a shallow roasting pan. Do not allow the meat to rest in fat. Do not add water or cover the roast. Cook for 20 minutes-3 hours. Let stand for 15-20 minutes. Ideal for roasts or meatloaf.

Season. To enhance flavor, season with rubs, marinades, and spices such as allspice, basil, bay leaves, caraway seed, celery seed, chili powder, cinnamon, cloves, cumin, curry powder, garlic, ginger, marjoram, nutmeg, oregano or thyme.

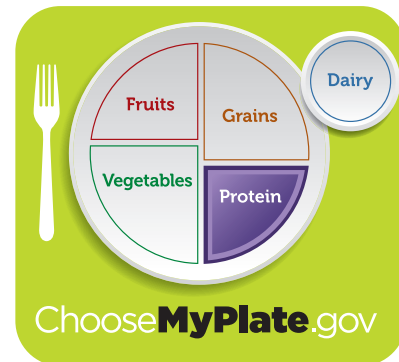
Stew. Brown all sides of beef over medium heat in pan prior to covering beef with a liquid, such as broth, water or juice. Bring liquid to boil and reduce heat to low to cook for 2-3 hours. Ideal for shanks, briskets or stew meats.

Stir-Fry. Similar to pan-fry method except beef is sliced into thin strips. Heat pan to medium heat, add oil to coat bottom of pan, add beef. Cook in small batches to allow moisture to evaporate. Cook beef by continuously turning for even browning. Ideal for steaks and added to vegetable dishes.

Adapted from Beef Food Fact Sheet developed by Montana State University Extension. For the full fact sheet and other resources, visit: <https://nutrition.msuextension.org/>.

Nutrition Information

Beef is a nutrient powerhouse. While the specific nutritional information depends on many factors as discussed above, beef is an excellent source of vitamin B₁₂ and protein and a good source of iron and vitamin B₆. Protein helps build and repair body tissues including muscles.



Dig Deeper

For sources and photo credits along with more recipes, lessons, quick activities, resources, and guides, visit: mtharvestofthemonth.org.

4 Montana Harvest of the Month: Beef



The Montana Harvest of the Month program showcases Montana grown foods in Montana schools and communities. This program is a collaboration between Montana Farm to School, Office of Public Instruction, Montana Team Nutrition Program, National Center for Appropriate Technology, Montana State University Extension, Gallatin Valley Farm to School, Montana Department of Agriculture, Montana Organic Association, and FoodCorps Montana. More information and resources are available at: mtharvestofthemonth.org

Funds were provided in part by a USDA Team Nutrition Training grant, a USDA Farm to School grant, Montana Healthcare Foundation, Northern Pulse Growers Association, Montana Department of Public Health and Human Services, and Montana School Nutrition Association. USDA is an equal opportunity provider and employer. The Montana State University Extension Service is an ADA/EO/AA/Veteran's Preference Employer and Provider of Educational Outreach. This publication was supported by the Grants or Cooperative Agreements Numbers, 6 U58DP004818-03-01 & 5 U58DP004818-03-00, and funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the DPHHS.