

# A Consumer's Guide to Grassfed Beef

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## Grassfed Beef – What Does that Mean?

Farmers use a variety of systems to raise healthy animals. One new trend in meats is really a return to what farm animals like cows, sheep, goats, and bison are designed for. These animals are described as ruminants and they have four chambers that make up their stomach. Ruminant animals are designed to eat and digest grasses and other plants, like alfalfa – something that we humans can't do with our measly one-chambered stomach. It's no surprise that humans domesticated these valuable animals that can convert indigestible grass into tasty meat and milk!

*The American Grassfed Association defines grassfed as "food product from animals that have eaten nothing but their mother's milk and fresh grass or grass-type hay from birth to harvest - all their lives"*

Today, most meat that you buy in the grocery store or get at the local burger restaurant is from animals that were raised in a feed lot and fed significant amounts of grain in addition to hay and pasture. Meat that is "grassfed" is from animals that are put "out on grass" or on pasture. The goal is to let animals harvest their own food and also be in charge of their own manure disposal – out in the pasture. Some farmers combine the use of grains with pasture; others choose to use pastures only.

### Environmental and Health Benefits to Grassfed Beef

From an environmental perspective, there are many reasons why raising animals on pasture is a good idea. High quality, healthy pastures means reduced soil erosion, improved water quality (a study done by the University of Wisconsin showed that pastures are the "best" crop for reducing runoff and erosion), increased plant diversity, and high quality habitat for wildlife. While perhaps not an environmental benefit, the view of green, flowing pastures where animals are contently grazing is indeed a sight that many people enjoy.



## Old Fashion Beef Brisket (recipe from Jack Kaestner, Executive Chef, Oconomowoc Lake Club)

4 pounds beef brisket  
 salt and pepper  
 1 TBSP paprika  
 3 TBSP oil  
 2 medium onion, diced  
 1/2 cup Red wine  
 3 medium carrots, peeled and sliced  
 2 ribs celery, diced  
 1 tomato, peeled, seeded and diced or 3 tbsp tomato paste  
 1 grilled bell pepper, peeled, ribbed and chopped  
 1 clove garlic  
 2 cups stock  
 1 bay leaf  
 1 tsp thyme  
 1/2 tsp cayenne or chipotle  
 2 cups potatoes, wedged, red skin or yellow like German butterball  
 1 cups small mushroom caps, small  
 1/2 cup red wine

Season meat (salt, pepper and paprika) and cook in a Dutch oven, sear till brown, drain the fat. Reduce the heat and add onions, cook till softened. Deglaze with the red wine and add carrots, tomato, pepper, garlic and cook till fragrant over medium heat. Add meat back to pan, add stock and rest of seasonings; liquid should be half way up the side of meat. Cover and bake for 2 hours at 325 degrees, then add potatoes. Bake another 1 hour and add mushrooms finish cooking. Drain juice into measuring cup, skim fat, should have about 3 cups of liquid. Place in small pan and reduce if necessary. Or see short rib recipe for two other ways to finish broth/sauce. Serve over meat or on the side.

**All of the recipes listed in this booklet can also be cooked with great results in a crockpot.**

**For more grassfed beef recipes go to Chef Kaestner's website. [www.wisconsinlocalfood.com](http://www.wisconsinlocalfood.com).**

(about 15 minutes). Add carrots, celery and garlic and cook until fragrant. Add meat and stock to Dutch oven. Liquid should be  $\frac{1}{2}$  to  $\frac{3}{4}$  up the side of the meat. Cover the Dutch oven and place in stove. Cook for 1 hour, remove and turn meat over. Add liquid if needed. Cook another 1-2 hours depending on the roast and oven. It should be fork tender. Remove meat from the Dutch oven and allow to rest on a platter. For the sauce, place the Dutch oven on the stove and bring remaining ingredients to a boil. Remove any excess fat. Puree mixture with a hand blender or food processor. Adjust the seasoning and allow it to reduce if the sauce is too thin. There should be enough onions and other ingredients to naturally thicken the sauce. Slice meat and top with the sauce.

### **Blackstrap Steaks with Caramelized Onions (adapted from [www.beefcookoff.org](http://www.beefcookoff.org), 2005 National winner)**

4 rib, T-bone, or other steaks for grilling  
 $\frac{1}{4}$  cup molasses  
 2 tbsp Worcestershire sauce  
 1 tbsp balsamic vinegar  
 $\frac{1}{2}$  tsp black pepper  
 Salt to taste

#### Caramelized Onion Relish

2 tbsp olive oil  
 1-1/2 cups chopped sweet onion  
 $\frac{3}{4}$  cup chopped red bell pepper  
 1 tbsp balsamic vinegar  
 2 tbsp chopped fresh basil  
 2 tbsp toasted pine nuts or walnuts  
 Salt to taste

Cook onions in olive oil for 5-7 min. Add bell peppers and continue cooking until peppers are crisp-tender. Stir in chopped basil, pine nuts and 1 tbsp vinegar. Season with salt. Keep warm. Combine molasses, Worcestershire and 1 tbsp vinegar in a small bowl. Season steaks with black pepper. Grill for a total of 12-15 minutes to desired doneness, turning and basting with molasses mixture as they cook. Serve steaks with caramelized onions. Garnish with fresh basil if desired.

There are a variety of health benefits associated with grass-fed meats. Grassfed meat is leaner than grain-fed beef and is lower in fat and calories (see cooking differences for more information on how to correctly cook lean meats). Additionally, studies have shown that grassfed meat contains more Vitamins A and E, conjugated linoleic acid (CLA) and Omega-3 fatty acids, all of which have been shown to lower cholesterol, diabetes, cancer, high blood pressure etc. (see table with nutritional information)

### **Nutrition Information for Grassfed Beef**

#### **Cattleana Galloway Beef Nutrient Content Comparison to Other Cooked Meats, Per 3 Ounces, Trimmed**

	*Cattleana Pasture-finished Galloway Beef Loin	USDA Prime Beef Loin	USDA Choice Beef Loin	Pork Loin	Lamb Loin	Chicken Breast Without Skin	Chicken Thigh Without Skin
<b>Protein (grams)</b>	<b>27</b>	24	24	26	26	26	22
<b>Fat (Grams)</b>	<b>3.5</b>	11.6	8.7	6.6	8.2	1.3	7.0
<b>Calories</b>	<b>129</b>	201	175	165	176	119	151

\* Cattleana Galloway Beef was analyzed by U.W. - Madison Meat Science Dept., 1998 (Loin from multiple samples.)

### Grassfed Flavor is a Matter of Individual Tastes

Many factors affect the flavor of meats. A diet of pasture versus grain, has a large effect on meat flavor. Besides changing the fatty acid content of meat, many people would describe grassfed meats as being a more intensely flavored meat. In addition, you may find flavor differences depending on the farmer you buy from, because we know that factors such as breed, age, and gender of the animal, along with aging of the carcass, diet, and stress factors all affect meat flavor. Many grazing farms raise beef breeds such as Scottish Highland and Galloway cattle that have been bred for grazing. It may take a grass-finished animal longer to achieve marbling than a conventionally raised animal, and they are more likely to grade choice or select than prime.

Because many grass-fed animals are produced and processed within a local area, the animals do not suffer the stresses of a long distance journey before slaughter. Postmortem aging of 7 to 21 days allows muscles to relax after slaughter adding to the flavor and tenderness of the meat.

### Cooking with Grassfed Beef

Because grassfed beef tends to be leaner and more flavorful than grain-fed beef, modifying cooking methods may produce better results. Grain fed beef, because of its higher fat content, is more forgiving when cooked. It is less likely to dry out or get tough if overcooked. Grassfed depends more on juiciness than fat for its moisture. Searing the outside of the meat to trap moisture, then cooking it slowly is recommended for grassfed beef. For best results:

1. Bring your grass-fed meat to room temperature before cooking, about 30 minutes for steaks and not more than 90 minutes for a roast.
2. Don't overcook! Because of the leanness of grassfed beef, cooking to well-done can dry it out. Cooking to rare or medium rare preserves the natural juiciness of the meat.

Place ribs in bowl or heavy plastic bag. In separate bowl mix wine, onions, carrots, celery, bay leaf, peppercorns, rosemary and thyme. Pour over ribs and marinate overnight. Remove ribs and pat dry, strain vegetables out, saving wine. Sear meat in hot pan with oil, sauté vegetables till golden, season with salt and pepper. Place meat in pan and top/surround with vegetables, add wine and enough stock to 3/4 way up meat. Cover and bake at 325 degrees until tender. Strain broth into another narrow container, skim fat (should have about 4 cups) and reduce till thickens. Coats the back of spoon. Divide ribs onto plate and top with sauce.

*Optional: you may add vegetables back into broth and puree in blender, strain. You may thicken broth with a little corn starch and water.*

### Pot Roast - grass or pasture raised (recipe from Jack Kaestner, Executive Chef, Oconomowoc Lake Club)

1 tsp dried Thyme  
 1 TBSP fresh Rosemary  
 1 TBSP paprika, smoked optional  
 1 TBSP kosher salt  
 1 tsp ground black pepper  
 4 pounds boneless chuck roast (or 4.5 pounds with the bone)  
 1 ounce oil  
 ½ cup red wine  
 ½ cup diced tomatoes or 3 tbsp paste.  
 2-1/2 cups stock  
 5 cups sliced onions  
 6 garlic cloves, roughly chopped  
 2 cup carrots, halved and 1/4" half moon  
 2 cups celery, 1/3" dice

Combine the first 5 spices, rub on meat and place in a zip-lock bag. Allow the meat to sit for several hours or refrigerate overnight. Pre-heat the oven to 325 degrees. In a large Dutch oven heat oil on medium high heat. Brown the meat on all sides and remove from the pot. Deglaze the pan with wine and then add tomatoes. Allow the tomatoes to caramelize a bit. Add onions and cook until softened

meat will not be ready for 2-3 weeks. The processing facility should call you to let you know your meat is ready. Payment is expected when the meat is picked up.

### Questions to Ask the Producer

There are a variety of production practices that farmers use to produce high quality meat products and it is worthwhile to talk to the producer about how their animals are raised. Typically, beef cattle are slaughtered at 18 to 24 months of age and animals over 30 months of age are not allowed to be sold commercially. Grass-fed beef is usually produced without growth promoting hormones or other additives, but be sure to ask the producer about their production practices if it is important to you. Grass-fed beef may or may not be produced with corn. Some pasture based farms feed a little grain to 'finish' the animal. If certified organic beef is a preference, be sure to ask the farmer if he or she is certified for organic production through the USDA National Organic Program. One of the benefits of buying directly from farmers is you can talk with them about their production practices and develop an understanding for what the farmers are doing as well as why they make the production decisions that they do.

### Recipes

#### Beef Shortribs in Red Wine Sauce (recipe from Jack Kaestner, Executive Chef, Oconomowoc Lake Club)

5 pounds - Meaty beef short ribs  
 1/2 bottle - Hearty red wine  
 1 Onion, sliced  
 2 Carrots, sliced  
 2 ribs Celery, sliced  
 1/2 Medium tomato, or 3 Tbsp tomato paste  
 1 Bay leaf  
 5 Garlic cloves, crushed  
 1/2 tbsp. Black peppercorns, cracked  
 3 sprigs Rosemary  
 3 sprigs Thyme  
 3 sprigs Parsley  
 1/2 tsp. FG pepper  
 1 1/2 tsp. Salt  
 3 cups Stock, beef or veal

3. Reduce the cooking temperatures by 25 degrees. The USDA recommends an end-point internal temperature of 145 degrees Fahrenheit for roasts.
4. Fat and juices make beef tender and flavorful. When grilling or roasting, sear the meat quickly over high heat to seal in the juices.
5. Ground beef can also be very lean. You may find that you need to add a little olive oil when browning or pan frying hamburgers.

### General guidelines for cooking different cuts

**Loin Cuts:** The highest quality, most tender cuts of meat come from the rib and loin areas of the animal. These include such cuts as rib, T-bone, and porterhouse steaks and prime rib roast. Next come the sirloin area which includes sirloin steaks and sirloin tip roasts. All of these cuts are good for grilling, broiling, and roasting. They can also be pan broiled over low heat on the stove. The roasts are good for dry roasting in the oven.

**Rump Cuts:** Rump roasts, round steaks and round roasts tend to be somewhat less tender. Round steaks can be marinated and grilled, but they're more often cut into chunks or sliced thin and used for kabobs, stir fry or stew. Rump and round roasts work well either as "pot roasts" or in stews cooked in liquid either on the stove or in the oven.

**Shoulder Cuts:** Shoulder or chuck cuts include chuck and arm roasts as well as short ribs. These cuts all work well braised or roasted slowly in liquid. Braising involves browning the meat, then cooking slowly in a small amount of liquid in a covered pan on the stove top. If prepared in the oven, these roasts are best cooked as 'pot roasts' in a deep pan with liquid

### Working With Frozen Meat

Buying meat directly from a farmer often involves working with frozen meat. Butchers use either whit butcher paper or

plastic vacuum packing for packaging meat. The plastic tends to maintain freshness for longer periods in the freezer and reduce the risk of freezer burn. If your supplier's butcher uses butcher paper, ask if it is wrapped in plastic inside the paper. This will help maintain quality during storage.



### Thawing Frozen Meat

It's possible to cook a roast starting with a frozen cut of meat, but most people thaw meat before cooking. There are several ways to thaw frozen meat.

- Thaw in the refrigerator. This can take 24 hours or more, so you need to plan ahead.
- Microwave thawing. Most microwave ovens have defrost settings that work fairly well for thin cuts of meat, but thicker cuts often end up being cooked around the edges before the center is thawed. The meat should be cooked immediately after it is thawed.
- Thaw in cold water. If your meat is wrapped in butcher paper, remove and place in a watertight plastic bag. If it is vacuum packed in plastic, you may place it directly in the water. Change the water every 30 minutes. Thawing will take 1-4 hours, depending on the size of the cut.

### Buying Grass Fed Beef

Many farmers do not sell meat by individual cuts, but offer it in sides, quarters, or smaller packs containing a variety of cuts. It may be more economical for you to purchase a

whole, half (side) or quarter of grass-fed beef if you have the freezer space to do so. It is important to understand how you are buying the beef if you choose to buy a large quantity. There are a variety of factors that affect the amount of meat you will receive if you are buying a whole, half or quarter. How much meat you will get by purchasing a 1,100 pound live steer will vary depending on the *dressing percentage* (the weight of the carcass after the hide, blood and organs are removed.) Typically, dressing percentages range from 56 - 65%, so a 1,100 pound steer would result in a carcass weighing between 616 and 715 pounds.

*Cutting yield* is the pounds of meat you can expect to take home once a carcass is further processed. Typically, with grass fed beef, you can expect a loss of 25-30% (attributed to the removal of bone and fat.) Losses can be greater with fattier carcasses. With a 650 pound carcass, you would expect to take home 455 to 487 pounds of beef. A side of beef would give you about 200-240 pounds of beef, and a quarter would be 100-120 pounds.

When buying meat as a whole, half or quarter, be sure to ask who will pay for the processing costs. In most situations, the consumer works directly with the processing plant and pays the processing costs; however, some farmers will pay the costs for processing and then include that charge in the overall price of the meat.

If you are not familiar with working with processing plants regarding cuts of meats and costs, ask the farmer you are buying the meat from to assist you with this process. Most farmers consistently work with the same processing facilities and should be able to address any questions you may have. You will need to follow up with the processing plant soon after the animal has been delivered to the facility to provide cutting instructions as well as any special requests you may have (sausages, special cuts, etc). Depending on how long the carcasses hang before they are cut up, the