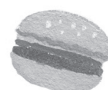




UPDATED & EXPANDED

# THE GRASSFED GOURMET COOKBOOK

*healthy cooking & good living  
with pasture-raised foods*



by SHANNON HAYES

FOREWORD BY BRUCE AIDELLS

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# GRASSFED 101

Congratulations! If you've picked up this book, you're about to enter a world of culinary splendor. Grassfed meats and dairy products not only are a healthful source of protein but also are, in my opinion, the most delicious source.

For most of us, the idea of grassfed meats and dairy products is intuitive. After all, when we picture healthy livestock, where do we see them? Out grazing in emerald-green fields, of course. When we read to our children their first books about farm animals, the sheep are pictured playing with lambs on flower-covered hillsides. Baby calves are running with their mothers in meadows. The animals are not shown standing in a feedlot, ankle-deep in excrement, and feeding on a grain-based diet laced with chemicals, antibiotics, and hormones. The bad news is that factory-produced livestock are now a major source of food in this country. The good news is that it doesn't have to be this way. We can feed our families food that comes from animals that do indeed graze in lush, green pastures and that enjoy humane treatment throughout their lives.

Animals raised on pasture eat what they are naturally inclined to eat in the wild. Wild herbivores never stand in the same spot; they continually move on to fresh grass. Today, farmers can manage pastures, keeping fields in a continual state of growth. Pasture-raised animals stay on a given section of pasture for only a brief period of time—usually anywhere from one to four days—and are then moved to fresh, green forage. There are, of course, exceptions. Omnivorous livestock, such as pigs and chickens, can't live on grass alone: they need to have their diets supplemented with grain. Grain or hay also serve to carry livestock through droughts and winter months, although even in those cases, supplemental feed is used sparingly. By comparison, although cows and beefstock that end up in large-scale factory farms may begin their lives eating grass at pasture, once they're old enough for production they are confined to cramped stockyards, paddocks, climate-controlled "factories," or feedlots for

the remainder of their lives and are fed a diet made up primarily of grain and supplements.

So, how do you know how your food was raised and what the animal was fed? Deciphering the myriad labels that appear on meats and dairy products is a challenge. With labels such as organic, range-fed, free-range, all natural, and grassfed, the health-conscious consumer can easily feel defeated or confused. The following information should help unravel the mysteries of today's labeling system as it applies to meat:

- **Free range.** The free-range label may—but may not necessarily—indicate that the animal was put outside or in a barnyard sometime during its lifetime. However, this label does not guarantee that the animal was raised on a diet of grass in a carefully managed pasture.
- **Natural.** According to the U.S. Food Safety and Inspection Service, the label natural can be applied to any product that does not contain “artificial ingredients, coloring ingredients, or chemical preservatives; and the product and its ingredients are not more than minimally processed.” In other words, minimally processed foods, such as fresh meat and poultry, automatically qualify to be labeled natural, regardless of what the animals were fed or whether or not they were treated with antibiotics or hormones.
- **Organic.** The organic label is an assurance that the meat you're buying was raised without the use of synthetic products and that the livestock feeds were not sprayed with synthetic pesticides or fertilizers. It also means that the animals were not treated with unnecessary antibiotics, hormones, or genetically modified organisms of any kind. Be aware, however, that even though organic standards, at the time of writing, do contain some pasture requirements, this is not a guarantee that the meat came from livestock with a predominantly pasture-based, all-natural diet. Hence, there is no assurance that organic meats will have the same nutritional benefits as grassfed meats. Although some organic producers may opt to raise their livestock on grass, animals can subsist primarily on a grain-based diet (so long as the grains are also organic) and still earn the federal organic label.
- **Pastured.** Omnivorous livestock, such as pigs and chickens, have a digestive system that requires a grain or other protein supplement in addition to green grass. On a sustainable farm, these pigs and chickens should have continuous access to fresh grass, but they also require daily feed. Thus, to differentiate

whether an animal gets daily grain feeding or not, we typically say that sustainably-raised chickens and pigs are “pastured,” whereas the lamb and beef (ruminants that can exist on forage alone) are called “grassfed.”

- **Grassfed.** If you want the benefits of grass-raised meats, then look for information indicating that the livestock were raised in this fashion. Key words might be grass-raised, range-fed, Argentine style, or New Zealand style. Talk to shop owners to find out what they know about the growers, or better yet, take the time to find growers in your area and visit them personally. The surest way to guarantee that your meat comes from animals raised in the healthiest manner possible is to see them grazing on lush green pastures.

In addition to recipes, the chapters in this book contain information on how to find a farmer in your area, tips for ensuring that the farmer is raising the livestock properly, and a directory of grass-based farm listings.

What are the advantages of eating meat from animals raised on grass? Take your pick. Grassfed meats come with a rich assortment of health, environmental, social, and economic benefits:

- **Health benefits.** Jo Robinson, in her landmark books *Pasture Perfect* and *Why Grassfed Is Best!*, uncovers the growing body of research supporting the notable health benefits of grassfed meats. In addition to being lower in fat and calories than grain-fed meats, grassfed meats are rich in “good fats”—notably, omega-3 fatty acids, which are linked to blood pressure reduction, healthy brain function, and the slowed growth of many types of cancer. Grassfed meats and dairy products are a rich source of conjugated linoleic acids, or CLAs, another “good fat,” which, according to Robinson, “may be one of our most potent defenses against cancer.” Beyond that, these meats are known to contain antioxidant vitamins and are much less likely to carry the virulent strain of *E. coli* 0157:H7. A 1998 study in *Science* magazine reported an *E. coli* count of 6,300,000 cells per gram of meat in grain-fed animals versus 20,000 cells per gram in grassfed meat.<sup>1</sup> Furthermore, there is reason to believe that the *E. coli* found in grassfed meat is much less likely to survive our first line of defense—our stomach acids. Although *E. coli* is typically unable to survive ruminant stomach acids, a cow whose diet is unnaturally high in grains generally has a higher level of acidity in its digestive tract. Thus, any *E. coli* that develops easily acclimates to the acid environment and can therefore survive human stomach acids. The very few *E. coli* cells found in grassfed cattle

have not become acclimated to an acid environment and so are less likely to survive in our own systems.<sup>2</sup>

- **Environmental benefits.** The pasturing of animals encourages biodiversity, improves soil fertility, and eliminates the waste-management problems associated with confinement-feeding operations. Feeding animals on grass reduces greenhouse gases in the air due to a process called carbon sequestration, wherein the grasses and legumes found in well-managed pastures are able to draw excess carbon dioxide from the air and return it to the soil as carbon. In an era where global warming is a major concern, this is important news. Livestock production and consumption often comes under fire for being a major contributor to greenhouse gas emissions. In November of 2006, the United Nations Food and Agriculture organization released a study reporting that global livestock production was responsible for more greenhouse gas emissions than automobiles (3). The research examines the direct impact of animal agriculture, partnered with the impact of *feed crop agriculture*, the farming of crops that go toward feeding livestock primarily in confinement settings. Feed crop agriculture is a monoculture cropping system. Much like most soybean production (the base of tofu), it is fuel intensive, chemical intensive and destructive to biodiversity. Livestock production that relies upon feed crops is associated with feedlots and confinement, the hallmarks of industrialized factory-farming. Growing grain for confinement livestock is an inefficient use of land resources. However, when cows, sheep and goats are raised on pasture, the amount of grain required is zero.

Responsible grass-based livestock production, where animals are kept on intensively managed pastures, is an entirely different game from factory farming. The problems of overgrazing, soil compaction, water pollution and topsoil erosion are huge no-nos in the world of pasture-based agriculture. What's more, studies have confirmed that grass-based livestock farming helps to improve the environment by sequestering excessive atmospheric carbon. A July 2005 report from the USDA Agricultural Research Service showed that properly managed pastures were able to store two to three times more carbon in their soil than fields that were left unmanaged, used for hay, or un-harvested (4). Another study by Iowa State University shows similar findings, indicating that properly grazed pasture is the ideal land use for storing carbon (5). Simply put, raising animals on well-managed pasture does not contribute to climate change.



- **Social benefits.** Purchasing grassfed meats and dairy products has a dramatic impact on animal as well as human welfare. Animals raised on lush, green pasture experience significantly less stress over the course of their lives than their factory-raised counterparts. They're not overcrowded, they're able to get exercise, and they can act on their natural instincts—moving to shade in the heat of the day, eating when they're hungry, or even playing with each other. Because pastured animals frequently move to new grass, they enjoy clean and spacious environments and are less likely than are confined animals to become ill or to contract an array of diseases. In addition, farmers working on grass-based operations enjoy a healthier work environment than those who work on large-scale factory farms. They are less likely to suffer from respiratory problems resulting from the dust, ammonia, and dangerously high levels of carbon dioxide so common in confinement facilities.(6)
- **Economic benefits.** Although grass-based farms are more labor-intensive, farm inputs, such as fossil fuels, are kept to a minimum, thus significantly reducing farmers' expenses. Furthermore, farmers are able to get a fair price for their product when they sell to informed, socially responsible consumers who are willing to pay the true cost of their food rather than relying on artificial price supports for the grain used to produce conventionally raised meat. This means that farm families can enjoy a fair return for their labor. Small-scale family farms—such as many locally operated pasture-based farms—contribute in numerous ways to a community. They hire local workers, contract with local service providers, purchase local goods, and participate in local activities. Unlike most other types of businesses, farms are unlikely to pull up roots and move somewhere else. They are invested in the community.

Your decision to purchase grassfed foods is an important one. The production of grassfed meats and dairy products helps heal our environment, it ensures the welfare of the livestock, and it enables farmers to realize better working conditions and a fair income. And grassfed meats are healthier. But the benefits don't stop there. Grassfed meats and dairy products taste better than their conventionally raised counterparts. Pastured pork and grassfed lamb have a particularly rich and savory flavor. Grassfed beef tends to be juicier with a rich, robust taste. Pasture-raised chickens have a firm texture and the type of flavor that older generations remember from their youth. Once you've experienced these superior foods, you'll never want to purchase conventionally raised meat or dairy products again.

So now that you know why pasture-raised meats are a better choice, you'll need to learn a few things about cooking them. Grassfed meats cannot always be prepared the same way as conventionally-raised meats. Their fat content varies, and their flavor is more pronounced. Cooked improperly, grassfed meats can be tough. Overseasoned, grassfed meats can lose their unique taste. But don't worry: you don't need to be a four-star—or even a three-star—chef to enjoy the benefits of pasture-raised foods. You simply need to learn a few basic cooking principles. The recipes in this book will guide you through the process of preparing and cooking these meats. Once you understand the basic principles, you can adapt any of your favorite recipes to accommodate whatever grassfed meats you buy.

There are four basic principles for cooking grassfed meats:

1. Put away your timer, get a good meat thermometer, and be prepared to use it.
  2. Turn down the heat.
  3. Learn when to use dry-heat cooking methods and when to use moist-heat methods.
  4. Ease up on the seasonings and sauces.
1. Put away your timer, get a good meat thermometer, and be prepared to use it. When you buy conventional meat raised in factory farm conditions, the fat content is very predictable. Our industrialized food system is very good at producing *predictable*, although not *flavorful* products. By contrast, pastured meats come from independent farms, and every farm is its own ecosystem with varying grass species, weather patterns and breeding programs. In a healthy pasture-based enterprise, each animal that is harvested will be a little different from the last. The genetics will vary, the grazing season will vary, the management will even vary a little. The result is that the meat will also be variable. Pork chops will be a little bigger or a little smaller. A rib eye steak may grade select, choice or prime. *That is a good thing*, indicating that the farmer is working in a true living system, rather than in a highly controlled, environmentally damaging factory setting. All this means that cooking times for all your pasture-raised meats will vary. Although I have provided you with some estimated times for the recipes in this book, the only way to know that the meat is done to your liking is to use a high-quality meat thermometer.



I'm fond of the digital thermometers found in most kitchen stores. These come with a slender probe attached by a wire to a digital readout that sits outside the oven. Before cooking the meat, place the probe deep into the cut, away from the bone and away from the bottom of the pan; do not take the probe out and reinsert it into several different places. Placing the probe properly and leaving it in place keeps the juices inside the meat, where they belong. It also means that you can leave the oven door closed while checking the temperature of the meat, thereby regulating the temperature of the oven and saving energy. Be mindful, however, not to leave the digital monitor on the surface of your oven. For some reason, the oven electronics can disrupt the thermometer's ability to take an accurate reading. Also, these thermometers will not work on induction cooktops due to the magnetic interference. If you are working on an induction stovetop, stick with an old fashioned dial thermometer. The table below gives the ideal internal temperatures for the various meats.

2. **Turn down the heat.** I've said it several times now, and I will say it several more times throughout the book. In general, grassfed meat is lower in insulating fat. If the heat is too high when grassfed meat is cooked, the moisture and the fat will exit quickly, which will toughen the protein. Until you're thoroughly familiar with cooking grassfed meats, it's best to set the flame a little lower when you're grilling or frying, and to set the oven temperature lower than is customary.
3. **Learn when to use dry-heat cooking methods and when to use moist-heat methods.** This is a tip that works for all meats—both conventional and grassfed. When cooking meat, there are two methods. The first is the dry-heat method. This is the process whereby fats and water are pulled from the meat, thus firming it up until it reaches the desired doneness. Dry-heat methods include pan-frying, broiling, roasting, barbecuing, grilling, stir-frying, and sautéing. Dry-heat cooking methods are appropriate for tender cuts of meat—loin cuts, for example—those that come from the animal muscles that do the least work. When you press down on an uncooked lamb loin chop, it's soft and squishy. The job of the cooking process is to remove the water and fat until that lamb chop toughens just enough to make it firm but juicy. Doing so requires a dry-heat method.

Moist-heat methods are used for tougher cuts of meat and include braising, barbecuing, stewing, crock-pot cooking, and boiling. Tougher cuts typically

come from the animal parts that do a lot of work, such as the shoulders. When muscles do a lot of work, they develop a connective tissue protein called collagen, which is what makes the meat tough. When a cut of meat contains collagen, your job as the chef is to break down the collagen, thus making the meat tender. When you press down on a corned beef brisket, it's tough. Boiling that meat breaks down the collagen, thereby tenderizing the meat.

Some cuts that work with moist-heat methods also work with a dry-heat method I call super-slow roasting. In this technique, tougher cuts of meat—such as shoulder chops of lamb and pork, beef chuck roasts, steaks, top rounds, and eye of rounds—are put in the oven at 170° and allowed to roast for several hours. The resulting meat is extremely flavorful and juicy, because the juice does not escape at such a low temperature. Instead, it stays inside the roast and works to break down the connective tissue. Also, the muscle fibers do not contract as much, keeping the proteins tender. A preliminary study I conducted with Denny Shaw, a Cornell University meat scientist, found that meats cooked using this method held their temperature much longer when they came out of the oven. This technique also reduces the likelihood that the meat will be overdone. Meats roasted several hours at very low temperatures will stay rosy and pink longer.

Most home cooks have not had the opportunity to work in a butcher shop and learn where each cut of meat comes from on the animal. To help you better understand different cuts of meat, each chapter of this book contains charts listing the most common cuts, followed by the appropriate cooking method. As you venture beyond the recipes here, keep the charts nearby to help guide you in preparing grassfed meats.

- 4. Ease up on the seasonings and sauces.** The most common mistake made by chefs and home cooks is not trusting that prime cuts of grassfed meat have sufficient flavor to stand on their own. As a nation, we've become accustomed to the flavor and texture of conventionally raised, factory-farmed meats. We assume we need to artificially infuse the meat with flavor through the excessive use of seasonings and sauces. This may be true of the meats sold in grocery stores or served at chain restaurants. But animals raised on pasture produce meats that have a distinctive flavor. Grassfed meats should be seasoned delicately so as not to mask or compromise their true taste. Although cuts best suited for moist-heat cooking methods are stronger in flavor—and thereby better able to handle heavy seasonings—this isn't always the best

way to enjoy prime cuts. When you first begin cooking grassfed meats, try using simple herb rubs or just salt and pepper so that you can experience the true flavor of the meat; in other words, learn how the meats are *supposed* to taste. Once you become accustomed to the diverse range of flavors of grassfed meats, you can venture into recipes involving seasonings and sauces. But again, I encourage you to first experience and appreciate the true flavors of these meats.

The remaining chapters in this book are organized into the following categories: beef, bison, venison, and veal; lamb and goat; pork; poultry and dairy. The introduction to each section contains some basic cooking principles and some suggestions for evaluating farms that grow the particular kind of meat; the recipes, many of which come from pasture-based farmers throughout North America, follow each section introduction. I have identified which recipes are good when cooking on a budget, which might work well for children, which are best when cooking in a hurry, which require minimum preparation time, and which are suitable for when you want to create an elegant, “showcase” feast.

So, go forth bravely into the exciting world of grassfed meats—and be sure to bring your appetite!

## T A B L E 1

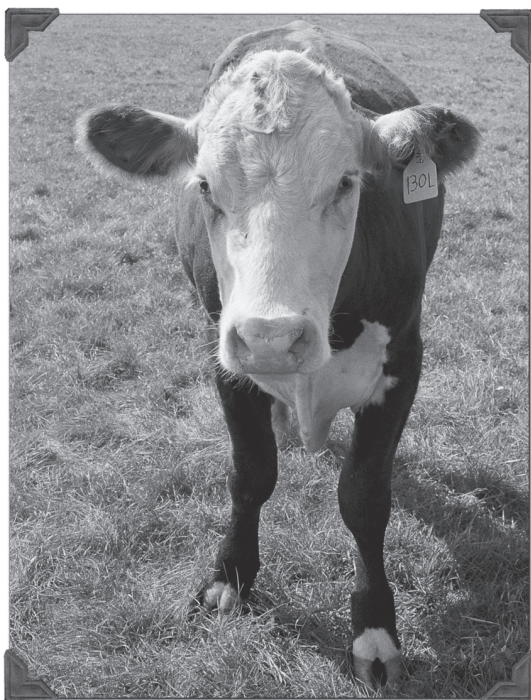
### RECOMMENDED INTERNAL TEMPERATURES FOR COOKED MEAT

The following table provides the ideal internal temperatures at which to remove the meat from the oven. Grassfed and pastured meats, which I advocate cooking at lower temperatures, typically require an additional resting period of about 2 minutes for chops and steaks and 5-10 minutes (depending on size) for roasts. During that time, the internal temperature of the meat will climb about 2-3 degrees for steaks and chops and 5-10 degrees for roasts.

Each type of meat listed below comes with two recommendations. The first is my suggested range—the temperatures that true meat lovers are likely to use when cooking reliably-sourced meat. The second is the USDA-recommended temperature range, which, happily, in recent years, has been adjusted to reflect the research of those of us who specialize in meat cookery. The older charts from the USDA, however, are way out of date and are an inappropriate guide when cooking dinner. Also, in spite of their recent changes, I still feel that the USDA recommendations are too high to ensure maximum flavor and juiciness when working with red meats. That’s because their figures assume folks are working with factory-farmed meats. My figures below assume you are working with reliably-sourced grassfed meats. The ultimate decision on which temperature guidelines to follow, however, lies with the cook.

MEAT	SUGGESTED INTERNAL TEMPERATURES	USDA RECOMMENDED INTERNAL TEMPERATURES
Beef, Bison, and Venison	115°–140°F	145°–170°F
Veal	125°–155°F	145°–170°F
Lamb and Goat	120°–145°F	145°–170°F
Pork	145°–160°F	145°F
Chicken	165°F	165°F
Turkey (unstuffed)*	165°F	165°F
Goose	165°F	165°F
Duck	165°F	165°F
Rabbit	160°F	160°F

\*If you cook the stuffing inside a turkey, the internal temperature of that stuffing must reach 165°F in order to be considered safe.



# Garlic-Herb Steaks in a Bourbon Pan Sauce

*I take my steaks very seriously, and as far as I'm concerned, this is the best (and possibly the only) way to prepare them. Much to my husband's delight, I also view these steaks as quintessential camping fare; they cook up just as beautifully over a backpacking stove as they do in our kitchen.*

SHOWCASE • IN A HURRY • MINIMUM PREPARATION

SERVES 2

## For the steaks:

- 2 steaks, 1¼ inch thick (T-bone, porterhouse, top blade, chuck eye, filet mignon, New York strip, or rib eye steaks will all work)
- 3 tablespoons Garlic-Herb Rub (see *Rubs and Resources*)
- 1-2 tablespoons butter, lard or tallow
- ⅓ cup bourbon

Generously coat each of the steaks with the Garlic-Herb Rub. Set them aside, and bring the meat to room temperature, about 30 minutes to 1 hour. Preheat the oven to 300°F.

Heat a non-reactive oven-proof skillet over a medium-high flame. Grease the pan with the butter, lard or tallow. Once the fat has melted and begins to sizzle and spatter, add the steaks, taking care to leave one inch of space around each one (if you do not have enough room in the pan, work in batches). Sear steaks for 2 minutes per side, then transfer the skillet with the steaks to the oven and roast 5-7 minutes (the internal temperature should be between 120° and 130°F).

Remove the steaks from the pan and tent loosely with foil.

Set the skillet back on the stovetop, turn the heat to low, add the bourbon, and simmer 2 minutes longer, stirring constantly and scraping up any browned bits. Set the steaks on warmed plates, top with the bourbon pan sauce, and serve.