CHEFS COLLABORATIVE COMMUNIQUÉ
by Carol Trauner • November 2003

LEAVES OF GRASS

the growing popularity of grass-fed beef and what you should know about it

Sustainable Beef

Chefs Collaborative has covered sustainable beef before; unlike our previous work, this communiqué is not intended to examine the many different approaches to natural and sustainable beef production, but instead to take an in-depth look at one approach and explain what you should know when you hear the terms "grass-fed" or "grass-finished beef."

Articles & Books

"Antibiotics on the Farm"
Chefs Collaborative Communiqué, Fall 2001

"Back to Grass" by Corby Kummer
The Atlantic Monthly, May 2003

"Grass-fed Beef" by Russ Parsons
Los Angeles Times; May 21, 2003

"Grass Roots Revolution" by Kim Severson
San Francisco Chronicle, June 19, 2002

"Power Steer" by Michael Pollan
New York Times Magazine, March 31, 2002

"What's Your Beef?"
Chefs Collaborative Communiqué, Spring 2001

"When a Crop Becomes King" by Michael Pollan
New York Times, July 18, 2002

Why Grassfed Is Best! by Jo Robinson
Vashon Island Press: 2000

Websites

American Grassfed Association
www.americangrassfed.com
Promotes grass-fed products and is working with USDA to establish legal definitions.

Eat Wild
www.eatwild.com
The definitive website for all things relating to grass and pasture feeding, Jo Robinson's site includes detailed information, articles, and lists of producers by state.

"We're the only country in the world that can afford to do what we do with animal meat." Ernest Phinney, general manager of Western Grasslands Beef, does not support the grain-based meat system that has become the standard in the United States over the past five decades. After World War II, when the federal government began heavily subsidizing grain production, corn became a cheap and fast way to add bulk to animals. Critics of grain feeding say that our wealth, which allows us to feed an expensive food crop to animals, has led to serious environmental problems, a commodity system that doesn't pay farmers enough to cover the costs of animal production, sick animals, and numerous human health problems. They argue that grass feeding avoids these problems and additionally seems to have important health benefits.

Why Should Chefs Be Interested in Grass-Fed Beef?

Over the years, chefs have become accustomed to hearing, and discovering for themselves, that the more sustainable or environmentally friendly option is the better tasting option. It's not hard to convince your colleagues and customers of the merits of wild salmon over farmed when the wild fish is much more flavorful. The argument is frequently that better management practices produce distinctly better flavor; in the case of grass-fed beef, better flavor is not necessarily the outcome. Grass-fed beef is not always preferable to some of the excellent artisanal, grain-finished beef available. Grass-fed beef strays into more explicitly political territory—why as a chef should you be interested in working with a product that is leaner and harder to cook? The issue of grass-fed beef is closer to Fair Trade than to wild salmon or local produce; when we talk about grass-fed beef, we're talking about the environment, about health, about quality of life, about fair wages—in some sense, we're talking about the scale of farming and the relationship we have to our food. Grain-fed beef relies on a grain economy that is bad for the planet, which is why many people are looking for a way to move beyond that model. The natural or organic grain-finishing approach of companies such as Niman Ranch, Coleman Natural Meats, and others represents a true improvement on the industrial feedlot system, but ultimately maintains a dependence, which some feel should be reduced even further, on the corn and feedlots of a fossil-fuel driven economy.

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Nearly all food animals can be raised to some degree on grass (or pasture, the term some farmers prefer). Cattle and bison can be raised entirely on pasture. Other animals that can be pastured are lamb, game, chickens, goats, and pigs. Dairy cows and veal can also be raised on grass. All cattle are raised on mother's milk, grass, and hay for around 10 months (for animals in the conventional commodity market, 70% of their lives). Most cattle at that point are sold to a broker and moved to a feedlot, where for four to six months they are fed (or "finished on") a diet designed to add weight quickly and cheaply—conventional feedlots use grain, animal by-products, blood meal, bakery by-products, agricultural waste, growth hormones, and antibiotics.

Most larger sustainable, natural, and organic beef producers still use some type of feedlot system and feed the animals grain, but with more humane treatment and without drugs or byproducts. In the case of organic, the feed must be certified organic and thus cannot contain genetically modified corn

or soy. Most smaller sustainable producers will keep their cattle on the farm until slaughter and supplement the feed with grain, particularly in the winter, when the animals are losing weight.

Grass-fed animals are raised on grass and hay until they are slaughtered, usually between 18 and 24 months of age. This simple definition belies a complicated issue: The USDA is developing labeling guidelines for the term "grass fed" and "free range," but the terms have no legal meaning at the moment. Some ranchers use the term "grass finished" to indicate that their animals lived on grass throughout their lives and differentiate themselves from producers who refer to their meat as grass fed, but acknowledge that they "finish" the animals on grain. Marlene Groves, the president of the newly formed American Grassfed Association and the owner of Buffalo Groves, likens this approach to saying a product is sugar free, except that sugar was added at the last minute. Dale Lasater, whose family has been raising grass-fed cattle on the Lasater Ranch in Colorado for more than 100 years, thinks the terminology is complicated enough without the added confusion of using "grass fed" to refer to animals fed grain. He, like many ranchers, is frustrated by this "complete misnomer" and believes that grass-fed beef producers are all "trying to say the same thing—no grain feeding."

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Appearance, Taste, & Cooking Differences

Producers and chefs struggle when asked to describe generic characteristics of grass-fed beef. Consistency is the mantra of conventional, not sustainable, meat production; the taste, appearance, and texture varies by animal. In general, the meat will be darker; in the spring, when the grass is greenest, the fat may be yellower; the meat will not be as marbled as grain-fed beef—some meat will have little to no marbling, while meat from other animals will have a fair amount. Tom Gardner of the New England Heritage Breeds Conservancy says that tasting is really the only way to test grass-fed beef, though he does recommend that you "see that there's some marbling, but…you don't want it be so marbled that you know it wasn't grass-finished."

Not surprisingly, what an animal is fed affects the flavor and texture of the meat. For animals such as cattle and bison, which can be raised entirely on grass, the difference is most striking. Grass-fed beef has gotten a bad reputation over the years, perhaps at least partly because of a strong corn lobby, as tough, flavorless, and chewy.

It's important to remember that the best grass-fed steak will not taste the same as a prime grain-fed steak. Grass-fed beef is a very different product, and the beef industry, dominated by the industrial, grain-fed model, has been pushing tenderness and marbling, characteristics of grain-fed beef, as the most desirable qualities. Dale Lasater, managing partner of the Lasater Ranch in Colorado, says, "I think the industry has gone overboard in focusing on tenderness," adding, "When someone puts beef in front of me, and I can cut it with fork, I'm not happy." Someone accustomed to marbled grain-fed steaks might be surprised by the unexpectedly leaner taste of a grass-fed steak. For others who grew up on it, good grass-fed beef tastes the way beef is supposed to taste: Gardner says, "There's a wonderful rare breeds trust in Britain that says, 'Do you remember what beef used to taste like?' That's it for me. I remember, as a young man, when beef started not to be as good as it used to be." Thom Fox, chef de cuisine of Acme Chophouse, says, "I would hesitate to do a side by side tasting, as the bigness of flavor from corn-/grain-finished beef can overshadow the more nuanced and cleaner, less cloying, flavors of grass-fed beef. Kind of like the big, overripe-tasting California wines overpowering a French Burgundy or Bordeaux."

Good grass-fed beef can be a wonderful thing, but it's not always easy to find. There are several factors that dramatically affect flavor.

Breed and Genetics: Grain finishing has been the dominant model in this country since World War II. As a result, most animals in this country have been bred for their ability to grow very large and gain weight quickly on grain, characteristics that are not useful for grass feeding and do not necessarily go hand in hand with good taste. Ranchers who are new to grass feeding are still developing good genetic lines and learning what breeds and characteristics work well. Phinney worked with purebred Limousin for several years before finally acknowledging it isn't a breed that tastes good on grass. Even for breeds that do produce tender, flavorful grass-fed beef, not every animal within the breed is a good candidate. Developing a good genetic line is an important step that grass ranchers, many of whom are just beginning to raise cattle for meat instead of breeding or dairy, are starting to take. The New England Livestock Alliance, among others, is helping ranchers develop good lines by ultrasounding calves in utero—they can identify physical characteristics that help identify which animals will be good candidates for grass-fed meat.

Cooking: Many ranchers grumble that chefs refuse to believe that grass-fed beef must be cooked differently. "If your objective is to cook one of our steaks medium rare, cook it as if you were cooking a conventional steak rare. Our beef is very tender," says Phinney. "Even things like pot roast, we tell chefs not to put it on the backburner" because the meat will cook and toughen much faster. He says the fat from grass-fed animals melts at a lower temperature and as a result the meats cooks a lot faster.

Slaughter and Processing: Gwyneth Harris, pasture networks facilitator for the Vermont Pasture Network, notes that the trauma of transportation and the entire slaughtering process dramatically affects the finished product. In Vermont, state law does not allow on-farm slaughter. Many producers feel that high-quality, artisanal meats need the reduced stress of on-farm slaughter and careful handling to reach their potential. If the trip to the slaughterhouse is too long or stressful, says Harris, "You have a traumatized animal, which becomes a much tougher animal." Michael Gale, of Chileno Beef in California, is able to bring someone to the farm to slaughter his 40 animals a year. He thinks it's an important part of what he does for the quality of the animals' lives and, he stresses, for the quality of the

meat. Many small producers are struggling with state legislation that does not allow on-farm slaughter and local slaughterhouses that are not prepared for the different needs of grass-fed animals and small producers. Organizations across the country are working to develop good relationships with slaughterhouse owners, to purchase mobile processing units that can be used on the farm, and to change legislation, but it's a slow process.

Dry Aging: Traditionally, all beef was dry aged for several weeks or more. Aging develops flavor and increases tenderness. Today, most beef, from conventional to artisanal, is aged for three days and packed in Cryovac plastic for "wet aging." Ted Johnson, a butcher and the owner of TR Johnson Meats, says wet aging just doesn't compare. The meat does age, he says, "but it doesn't age gracefully." Wet aging also adds a "gassy flavor" to the meat. For grass-fed steaks, which start out leaner and less tender than grain-fed, dry aging can be extremely important. Aging is less of an issue for cuts that will be braised, although Johnson says, "In my experience, if you've aged it right, it sure doesn't hurt flavorwise and tendernesswise." Johnson also raises an interesting point: The jump from grain-fed, wet-aged beef to dry-aged, grass-fed beef might be a difficult adjustment. He believes chefs should help educate their customers and guide them through the different tastes, perhaps starting with dry-aged, grain-fed meat, moving on to grass-fed, and then finally offering the very different dry-aged, grass-fed steak.

Benefits of Grass-Fed Beef

Many consumers are becoming interested in grass-fed meat because of the human health benefits. The social and environmental benefits are in many ways more dramatic.

Health

Cholesterol: One of the clearest benefits is the significantly lower fat and cholesterol levels of animals raised on low-fat grass, which translates into lower fat and cholesterol levels in the finished product.

Omega-3s and CLA: The decrease in cholesterol is reason enough for some to seek out grass-fed meat, but others are lured in by the claims of active benefits: Grass-fed meat and dairy products from grass-fed animals are higher in omega-3 fatty acids and conjugated linoleic acid (CLA). Omega-3s have gained fame in recent years as an essential component of a healthy diet: They are believed to prevent heart disease, rheumatoid arthritis, and some cancers, and affect mental health. CLA is believed to slow some types of cancer, reduce the risk of heart disease, and increase lean muscle mass. Dr. Tilak Dhiman, of Utah State University, has studied the omega-3, conjugated linoleic acid (CLA), and cholesterol levels of grass-fed cattle, grass-fed bison, and the milk of grass-fed cows and compared them to the levels in feedlot beef and bison, conventionally produced chicken, and conventionally produced milk, showing the levels to be quite different. Significantly, the levels of omega-3s and CLA drop as soon as the animal is taken off green grass. Grain feeding, for even a short period of time, reduces the omega-3 and CLA content of the meat. Not everyone agrees that the higher levels are useful, however: Some scientists do not believe the levels are high enough to have any impact. For people seeking out these benefits, it is especially important to know what the rancher means by "grass fed."

Antibiotics: The indirect health benefits of grass-fed or grass-finished meat are also striking. Animals raised on their natural feed tend to be healthier; cattle can't actually digest large quantities of grain, so feedlot animals are given large amounts of Rumesin, an antimicrobial, and are regularly treated with drugs and antibiotics, which many scientists fear is contributing to antibiotic resistance. Grass-fed animals are only treated with drugs or antibiotics when they are sick. According to Phinney, only one animal in the Western Grasslands program required drugs within the past two years, and that one for an infected bruise. The animal was treated and removed from the program.

E. coli: One surprising benefit of grass-fed meat concerns E. coli, a potentially deadly bacteria. Grain-fed animals have more acidic stomachs; according to Jo Robinson, author of *Why Grassfed Is Best*, "this acidic environment speeds the growth of potentially dangerous E. coli bacteria and, even worse, makes the bugs more acid-resistant. Alarmingly, these acid-resistant bacteria are much more likely to survive the cleansing acidity of our own digestive juices and make us ill."

Social

Ranchers and farmers are turning to grass feeding because they couldn't make a living through the traditional commodity market system of raising their cattle on grass and selling the calves to a broker. Michael Gale explains what he calls his epiphany: "You can't make a living selling your animals for $400 a piece when it costs more to raise them." He decided to cut out the middleman and take control of the process all the way through to selling to his happy customers. For many who have recently switched to grass feeding, they say it's still an experiment to see if they can do it profitably; it's an unfair battle, though—grain subsidies allow the industrial model to be profitable. Peter Hoffman, chef and owner of Savoy in New York, argues that it's in everyone's best interest to find a way to support an economically sustainable farm system that isn't dependent on grain subsidies and the importation of fossil fuels because "what we have now is a really perverted, inverted system that increasingly doesn't make sense."

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Environment and Animal Welfare

Consumers seem to be turning to grass-fed meat largely for human health reasons. The environmental benefits, however, are even stronger. Grass and hay require few, if any, chemical inputs; the corn fed to most cattle in this country is grown with the heavy use of pesticides and nitrogen fertilizers, which pollute our land and waters and require substantial amounts of amounts of oil to produce. Phinney, responding to arguments that there isn't enough available land on which to grow grass, retorts, "Well, of course not, but you would have to take a lot of the grain out of production. It's a question of management; it's a very contentious issue. I think people need to start thinking differently." From an animal welfare standpoint, cattle ending

their lives roaming the pasture eating grass and alfalfa have better lives than those in industrial feedlots. The situation becomes less clear when you consider small farms that grain finish their own cattle and avoid the use of drugs or antibiotics, particularly if you're talking about shipping hay across the country.

Buying Grass-Fed Meat

You won't encounter the term "grass-fed beef industry" very often—grass production is tiny. Even the big producers such as Lasater and Western Grasslands slaughter only a few hundred cattle a year. Supply and consistency are still a problem; someone likens the grass-fed market to where organic was 20 years ago. Many producers only sell whole, half, or quarter carcasses. With most specialty meats, purchasing a whole animal and using all the cuts isn't that difficult. With creativity, chefs can use all the cuts from lamb or veal. Purchasing a whole carcass or a side of beef, although the most economical approach to a high-price item, is a different matter. Even the most determined chef at a small restaurant may have trouble figuring out what to do with an entire hind leg. Beth Collins, sous chef at the Ross School in East Hampton, who buys a steer a month from Meadow Raised Meats, says that larger institutional buyers, for once, may have the advantage; the ability to buy whole animals, freeze large quantities, and not worry about perfect consistency are benefits that many restaurants may not enjoy.

Seasonality is another problem. Western Grasslands, blessed by the California climate—which allows for different breeding times at different ranches, is attempting to sell fresh grass-fed meat year-round. Other ranches in California have a fairly lengthy summer season; they sell fresh meat from early summer until the grass turns brown. That said, for most of the country, fresh grass-fed meat is a seasonal product. While some producers do sell frozen meat year-round, many do not have anything left to freeze. Other producers are able to keep slaughtering throughout the winter by supplementing the diet with hay and silage (see www.eatwild.com for a discussion of silage). At that point, Collins turns to local grain-finished meat rather than shipping grass-fed or grain-fed beef across the country: "It's more important for me to support the regional meat industry; if I can find a small-scale producer that has some meat, I'll buy that."

What Is the Solution?

Chefs have several options, depending on the size and type of their restaurants. Larry Bain, director of operations at Acme Chophouse, says that a steakhouse simply can't buy whole carcasses for all the steaks it serves. A different type of restaurant might be able to buy a whole animal and slowly use the other cuts and hamburger in specials and at staff meals. For restaurants such as Acme that go through hundreds of filets a week, it may be necessary to work with larger ranches or co-ops that sell individual cuts. California's Western Grasslands Beef and New York's Meadow Raised both sell individual cuts as well as hamburger, allowing steakhouses to get their filets without guilt and upscale burger joints to get their hamburger without all those pesky primals. At the Ross School, Collins and her chefs have had to learn butchering, where the grain lies on unusual cuts, and how to cook those cuts. These are challenges for chefs used to getting beef in a box, but they now grill cuts most say can't be grilled, save the beef bones for stock, and save up short ribs in the freezer until they have enough to serve. Why bother, if it takes so much more effort? Collins admits that there are many hurdles, but says that after going to farms and educating herself, "It just makes sense, is the bottom line."

Carol Trauner is the publications director at Chefs Collaborative. We welcome your thoughts—please send comments or questions to carol@chefscollaborative.org.

Grass-Fed Products Mentioned

Buffalo Groves
www.buffalogroves.com; (877) 468-2833

Chileno Beef
www.chilenobeef.com; (707) 765-6664

Lasater Grasslands Beef
www.lasatergrasslandsbeef.com; (866) 454 2333

Meadow Raised Meats
www.meadowraisedmeats.com; (607)-278-5602

New England Livestock Alliance
www.nelivestockalliance.org
info@nelivestockalliance.org

Vermont Pasture Network
www.uvm.edu/%7Esusagctr/grass.html
Call (802) 656-3834 to receive a copy of the producer directory.

Western Grasslands Beef
www.westerngrasslands.com
info@westerngrasslands.com

Natural Products Mentioned

Coleman Natural Meats
www.colemanmeats.com; (800) 442-8666

Niman Ranch
www.nimanranch.com; (510) 808-0340

Where to Buy Grass-Fed Meats

Visit the Eat Wild and Eatwell sites to find sustainable meat in your region. If no grass-fed meat is available, consider buying from a local, sustainable producer who may grain finish, or try a larger cooperative such as Conservation Beef.

Conservation Beef
www.conservationbeef.com; (877) 749-7177

Eat Wild
www.eatwild.com
Eat Wild has an extensive directory of grass-fed products across the country. Producers listed on the site certify that they have met the Eat Wild guidelines.

The Eatwell Guide
www.eatwellguide.com
Not restricted to grass-fed products, this joint project of IATP and GRACE lists sustainable meat by region.

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