

# Sustainable Meat Production Goes Hand in Hand With Renewable Land Management

Analysis by [Dr. Joseph Mercola](#)

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## STORY AT-A-GLANCE

- › Grazing cattle are important for optimal ecosystem functioning. Densely congregated animals moved frequently are best
- › When properly managed, cattle do not promote climate change. The EPA has quantified the total impact of all domesticated grazing animals as contributing about 2% of greenhouse gases to the total climate change picture
- › Mob grazing fosters the composting that takes place naturally in a pasture-range land environment, thereby accelerating the building of fertile topsoil and positively impacting the water cycle

***Editor's Note: This article is a reprint. It was originally published January 3, 2016.***

Whether you believe it's beneficial to eat beef or not, how it's raised has a significant impact on human health and the environment. Nicolette Hahn Niman has an interesting skill set that has allowed her to see the issue of how we raise livestock from many different perspectives.

She's a rancher, an environmental lawyer, author, and mother. Her story began about 15 years ago, when she was living as a vegetarian attorney in Manhattan, and got the chance to work for Robert Kennedy Jr.

*"When I went to college, I majored in Biology because I love nature, and I was already involved in environmental causes. It was actually in college, as a*

*freshman, that I became a vegetarian. Largely because I believed that it was the right thing to do as a citizen of the world.*

*I heard a lot about how meat was resource intensive. I remember specifically hearing that beef was the main cause of deforestation in the Amazon. So I made the choice at that time to become vegetarian," she says.*

*"I had this passion for the environment and went to law school. Many years later, I was practicing as a lawyer back in my hometown of Kalamazoo ...*

*I was on the city council and heard Bobby Kennedy Jr. give a speech about how citizens can use the environmental laws to protect the environment ... That really motivated me to get involved, as a lawyer, for protecting the environment."*

## **From Environmental Lawyer to Sustainable Rancher**

After working for the National Wildlife Federation (NWF), in 2000 she was given the opportunity to work directly for Bobby Kennedy in New York on the issue of livestock-related pollution. That began Nicolette's journey into meat production — how it's produced and what the implications for human health and the environment are.

As noted by Nicolette, the implications are radically different depending on how the livestock are raised; the details of which she reveals in her book, [Defending Beef: The Case for Sustainable Meat Production](#).

(Her first book, [Righteous Porkchop: Finding a Life and Good Food Beyond Factory Farms](#), describes how all of the major animal foods are produced, and reveals why industrial methods are bad for the environment, humans, and animals.)

During her travels around the country, touring all types of livestock, dairy, poultry, and egg production facilities, she met Bill Niman, founder of the Niman Ranch Network, which includes 800 farmers and ranchers around the country.

They eventually married, and Nicolette left her Manhattan apartment for his ranch, north of San Francisco in Northern California.

*"Initially, I just thought I would continue my work as an environmental lawyer but living here every day and spending time here, I just got so fascinated and enamored with the amazing things that were happening around me and I wanted to be directly involved," she says.*

*"So I started working on the ranch every day. I've been doing that ever since, and that's been 12 years."*

## **A Vegetarian Rancher's View on Beef Production**

Interestingly, despite working as a rancher and advocating sustainable beef, Nicolette has maintained her vegetarian diet, but not for health reasons. In her view, meat can be healthy or harmful — it's all about how the meat is produced.

She and her husband Bill Niman are strong advocates and leaders in helping people understand the importance of properly raised meat, both for human health and the environment.

*"An optimal human diet includes animal-based foods, including meat. But for me, one of the primary motivations was this very intense attachment I've always felt for animals. It makes me more comfortable not to eat meat.*

*But I do eat animal-based foods so I eat plenty of dairy, butter, and eggs," she says. "From my readings and my research, I feel there's a dramatic difference nutritionally between vegetarianism and veganism. I've never followed the vegan diet. Personally, I would not recommend it to anyone."*

As time went on, Nicolette became increasingly frustrated by the oversimplification she kept hearing with regards to beef production. Many are convinced it's excessively resource intensive, damaging to the environment, and think that not raising or eating meat at all is the best answer.

*"I've been to dozens and dozens of farms and ranches around the country that raise livestock, and I've seen the tremendous benefits to the whole natural cycle in having the animals there.*

*I felt that someone who had genuine environmental credentials, but also really understood the agricultural side, needed to make the case that well-raised cattle belong in an ecologically optimal food system," she says, and this eventually led her to write Defending Beef.*

## **What's Wrong With CAFO Beef?**

In Nicolette's view, there are many troubling practices in mainstream beef production, where the animals are raised in **concentrated animal feeding operations** (CAFOs).

For starters, feed additives have a number of problematic aspects, and can contaminate both the food and the environment. Antibiotics are routinely given to factory farmed animals to prevent disease and promote rapid growth, and this is a major driving factor behind antibiotic-resistant disease. Very rarely are antibiotics administered to pastured animals.

*"There's a lot of research showing that continuous feeding of antibiotics contributes to the rise of antibiotic resistance throughout the environment and on the meat. So, there are many, many good reasons that that should not be permitted. But that's quite widespread," she says.*

*"I was also surprised as well how widespread the use of growth hormones is. I've known for a long time that growth hormones are used in beef production, but I didn't realize how ubiquitous it is. It's done on the majority of cattle ranches ... It's also done almost universally at feedlots."*

With regard to the ecological impact of cattle, it's important to realize that most cows and calves in the U.S. are actually raised on grass. However, most yearling cattle are then shipped off to a feedlot where they're confined in a factory-style setting and fed a

genetically engineered grain-based diet, plus an assortment of veterinary drugs and feed additives up until the time of slaughter.

So a significant percentage of cattle are actually properly raised to start, but sadly end up in the factory farm model, which ruins the good start they were given.

In fact lack of access to slaughterhouses is one hurdle that keeps many small farmers from succeeding. All farmers must use USDA-approved slaughterhouses, and laws place special restrictions on grass fed slaughtering. If a grass fed rancher doesn't have access to a slaughterhouse, it's nearly impossible to stay in business.

This shrewd strategy effectively maintains the status quo of CAFOs, because grass fed ranchers are often forced to ship their cattle hundreds of miles for "processing" – a move that's both costly and stressful. Large slaughterhouses can also refuse smaller jobs, as they – just like CAFOs – operate on economy of scale.

*"That's a really important point to understand because many well managed ranches that are doing a beautiful job with their animals, with land husbandry, and land stewardship are unfortunately sending their cattle, their calves or yearlings, into the mainstream beef system. That's unfortunate. But when we talk about ecological impacts, it's important to keep that distinction on mind.*

*The totally grass-fed sector is only about 5% of the total beef industry. It is growing. The overall consumption of beef has been steadily declining for the last three decades, but the grass-fed sector is rising. So, it makes a strong case for people within the beef industry, people raising cattle, to get into the totally grass-fed sector. That's part of the good news."*

## **Grazing Is Essential to Ecosystem Functioning**

When it comes to differentiating between sustainable practices, a key question is, "How are the animals managed on the land?" There's a great deal of research taking place all over the world to determine the best ways to regenerate the environment, and cattle are a key ingredient.

According to Dr. Richard Teague, who's been researching the impacts of cattle grazing for decades, careful management of the animals' movements is essential. Densely congregated animals that are moved frequently is optimal. The goal is to mimic the environmental impact that would be had by herds of wild animals. When you do that, it has dramatically positive impacts for the soil health, the water, the production of the water, and even for climate change.

*"There's constant dialogue within the ranching and farming community about how to do things better. But I think that the worst practice is what they call continuous grazing, where you're basically allowing animals to have access to a very large tract of land.*

*When you look back at the ranching that was done in the 1850s in this country, for example, a lot of it was done this way, where you'd have them covering an enormous area of land, let's say thousands of acres.*

*Basically, they were just allowed to be there year round. Then you would gather them at a certain point in time. You might do some branding; you might take someone out that you're going to send to slaughter, and then you turn them back out to the range. That's the worst kind of ranching from the environmental perspective."*

## **The Benefits of Grazing**

Grazing has multiple impacts. Most people believe that grazing is a negative, but that's not true. Grazing is actually essential to ecosystem functioning. It stimulates plant growth, and helps press the seeds into the ground. But you don't want the grazing to be continuously ongoing in one area. You also don't want the herd to be too dispersed. To be optimized, grazing needs to be high impact, over a shorter period of time.

Historically, herds of wild animals, such as bison, would move in very large herds, accompanied by various predators. The presence of the predators ensured that the grazing herds stayed fairly compact, and kept the animals moving. It's really the lack of

predators that makes modern herds spread out over larger areas. So, domesticated grazing will not replicate the movements of wild herds unless you manage them properly.

In addition to grazing the grasses, the cattle also press the vegetation into the soil, which stimulates the decay of that vegetation. The cattle also deposit urine and dung onto the land, which acts as fertilizer. In this way, grazing herds accelerate the building of fertile topsoil. It also affects the water cycle because for every 1% of organic matter in topsoil, 27,000 additional gallons of water is maintained in that water per acre.

## **Optimal Farming Practices Includes Animals**

In essence, mob grazing fosters the composting that takes place naturally in a pasture or rangeland environment. Then you have to get the animals off the land because you have to allow for resting and regeneration. In her book, Nicolette notes that continuous grazing and no grazing have ecologically very similar effects – neither promotes land regeneration.

*"It's a very common misconception that it would be ecologically best to have no animals. I'm arguing there's very good evidence that the ecologically optimal system has animals in it, but they have to be managed well," she says. "There are many good farming systems. There are many good ways of raising animals, and it's very site specific and it's very climate specific.*

*One thing that's important to remember is that you can have small numbers of animals integrated into a diversified farming operation and that can be a very beneficial way to have animals. But when you're talking about these larger herds, especially these grazing animals, the vast majority of those are on these areas where you don't or can't farm.*

*About 85% of the cattle grazing in the United States is believed to be done on land that cannot be used to grow crops. That's an essential point for people to understand. When you have that kind of topography, it's beneficial to use large*

*herds of animals ... On smaller, more diversified farms, like what you would typically see on some of the Eastern half of the United States, you may be able to do things without the big grazing animals.*

*But in vast open landscapes that are arid or semi-arid, in my view, you have to have the grazing animals ... You have to have this fostering of the cycle, of birth, growth, death, and decay. That's the key to a healthy ecosystem. If you don't have animals there and you just have essentially a naked landscape, that's when the land decays. You need to have the animals."*

## **Cattle Are Not a Major Contributor to Greenhouse Gases**

As for cattle contributing to greenhouse gases that drive climate change, Nicolette insists most of the statistics batted around are grossly inaccurate and unscientific.

*"The most credible work that's been done on this in the United States was done by the United States Environmental Protection Agency," she says. "It has quantified the total impact of all of the grazing animals: cattle, goats, sheep, domesticated bison, and everything as contributing about two percent of greenhouse gases to the total climate change picture in the United States.*

*Globally, the number is a little bit higher. The Food and Agriculture Organization of the United Nations says that it's about 9% total. But the bottom line is that that number is far smaller than many people have been hearing lately because there's a lot of misinformation out there. Even that number, in my view, is far higher than the actual number because it doesn't include any consideration of the mitigation, [such as] the carbon sequestration."*

Researchers have even found that when you have an intact ecosystem, which includes grazing animals, the soil microbes process large amounts of methane. Nicolette cites an Australian study, which found that the total methane emitted from the cattle in a well-managed system was fully offset by the soil microbes. According to Nicolette:



*"The focus is totally off in the climate change discussion when it comes to food production. We really should be looking at the culprits in terms of the industrialization, the chemicals, and the fossil fuel dependence rather than focusing so intently and so off-base on the ruminants, which are actually the essential component of regenerative systems."*

## **How You Can Help Catalyze Change**

When it comes to catalyzing change in the food system, consumers wield the greatest amount of power. Everyone eats food on a daily basis, and voting with your pocketbook is a very powerful way to create shifts in the marketplace. Each time you buy food, you are putting money into one system or another, so give your money to the system you'd like to see grow.

*"It's often more expensive and more difficult to find the well-produced food. But I think it's something that is really worth our money and it's worth our effort. In fact, in my view, it's one of the most important things we can do for our own health and for the environment's health," Nicolette says.*

*"I certainly urge people to seek out well-raised food. I always encourage people to go to farmer's markets and to seek local farmers who have community-supported agriculture (CSA) where you can buy a portion of the food they produce. There's more and more animal-based foods that are available that way too. You know, 10 years ago, it was hard to find meat and dairy products at farmer's markets or CSAs but now, it's quite available.*

*When it comes to animal-based foods, I always think the key is grass. Look for foods that were raised on grass as much as possible."*

Larger grocery chains are jumping on the "organic band wagon," but purchasing from your local organic farmers and ranchers is your best bet. This also helps establish greater food security in your local area, which will ultimately help your neighbors as well. That said, when shopping for beef, keep the following labels in mind to help you find

high-quality products. Ideally, look for beef that is both organic and grass fed/grass-finished.

**100% USDA Organic** label offers excellent assurance that antibiotics have not been used at any stage of production.

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**"No antibiotics administered"** and similar labels also offer high assurance that antibiotics have not been used, especially if accompanied by a "USDA process Verified" shield.

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**"Grass fed"** label coupled with USDA Organic label means no antibiotics have been used, but if the "grass fed" label appears alone, antibiotics may have been given.

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**"American Grassfed"** and **"Food Alliance Grassfed"** labels indicate that in addition to having been raised on grass, the animal in question received no antibiotics. This is the best label of all but is in the early stages of development so you will likely not see it widely until next year.

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The following three labels: **"Antibiotic-free," "No antibiotic residues,"** and **"No antibiotic growth promotants,"** have not been approved by the USDA and may be misleading if not outright fraudulent.

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**"Natural"** or **"All-Natural"** is completely meaningless and has no bearing on whether or not the animal was raised according to organic principles. "Natural" meat and poultry products can by law receive antibiotics, hormones, and genetically engineered grains, and can be raised in CAFOs.

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