

Beef is Healthy for Us and the Environment

One of my favorite conversations to have is this: if you were stranded on an island for one year, with plenty of water, what two things would you choose to eat/drink every day? My choice is easy, a hamburger with all the fixins and my diet Dr Pepper.

A 3-ounce serving of lean beef provides 10 essential nutrients in about 170 calories, including high-quality protein, zinc, iron and B vitamins. No other protein source offers the same nutrient mix. Furthermore, any one of the nearly 40 cuts of beef considered lean can be included as part of a heart-healthy diet to support cardiovascular health, according to recent research from Purdue University. Additionally, research has consistently demonstrated that the nutrients in beef promote health throughout life. In particular, the protein, iron, zinc and B-vitamins in beef help ensure young children start life strong, building healthy bodies and brains. Protein is also especially important in aging populations due to its ability to help build and maintain muscle. After 50 years of age, adults are at risk for losing muscle mass, leading to falls and frailty that affect their ability to age independently.

“Research shows that beef can play an important role in promoting health and helping to prevent nutrient deficiencies,” said Shalene McNeill, Ph.D., R.D., Executive Director of Human Nutrition Research at the National Cattlemen’s Beef Association, a contractor to the Beef Checkoff. “Most people already consume beef within established, science-based global dietary guidelines, so there is no reason to systematically reduce beef consumption. “Research recently conducted by the USDA’s Agricultural Research Service and The Beef Checkoff, and published in the journal *Agricultural Systems*, found that data commonly used to depict beef cattle’s environmental impact in the U.S. is often overestimated. The study, which is the most comprehensive beef lifecycle assessment to-date, evaluated greenhouse gas emissions, feed consumption, water use and fossil fuel inputs. In all these areas, beef’s environmental impacts were found to be less than previously reported. Specifically, the report found:

- Beef production, including the production of animal feed, is responsible for only 3.3 percent of greenhouse gas emissions in the U.S.**
- Per pound of beef carcass weight, cattle only consume 2.6 pounds of grain, which is similar to pork and poultry.**
- Corn used to feed beef cattle only represents approximately 9 percent of harvested corn grain in the U.S., or 8 million acres.**

- **On average, it takes 308 gallons of water, which is recycled, to produce a pound of boneless beef. In total, water use by beef is only around 5 percent of U.S. water withdrawals.**
- **Total fossil energy input to U.S. beef cattle production is equivalent to 0.7 percent of total national consumption of fossil fuels.**

Not only does this data demonstrate that cattle's environmental impact is less than often reported, thanks to cattle's unique digestive system they can actually help mitigate food waste.

"Cattle are natural upcyclers, which means most of what cattle eat can't be consumed by humans and would otherwise end up in the landfill," explained Sara Place, Ph.D., Senior Director of Sustainable Beef Production Research for the National Cattlemen's Beef Association, a contractor to the Beef Checkoff. "At the end of the day, cattle generate more protein for the human food supply than would exist without them because their unique digestive system allows them to convert human-inedible plants into high-quality protein."

It's also important to note that beef continues to become more sustainable in the U.S. thanks to innovation and production efficiencies. In the U.S. today, the same amount of beef is produced with one-third fewer cattle as compared to the mid-1970s, according to USDA's National Agricultural Statistics Service. If the rest of the world were as efficient as the U.S., global beef production could double while cutting the global cattle herd by 25 percent.