

Raising Sustainable Beef | a scientist's point of view



There are a lot of opinions on the best way to raise enough food to feed a growing global population, while using fewer natural resources than in the past—but many of those opinions aren't backed by science. Contrary to what the critics say, “The environmental impact of beef production in the United States: 1977 compared with 2007,” a study published in the *Journal of Animal Science*, found that from 1977 to 2007 the carbon footprint of beef was reduced by 16.3 percent. Here are the facts about beef's shrinking environmental footprint from the study's author, Jude Capper, Ph.D., Assistant Professor of Dairy Sciences in the Department of Animal Sciences at Washington State University.

The critics say: “Beef has a big environmental footprint.”

The science says: **The environmental footprint of beef is shrinking.** Each pound of beef raised in 2007 (compared to 1977) used:

- 19 percent less feed;
- 33 percent less land;
- 12 percent less water; and
- 9 percent less fossil fuel energy;

The carbon footprint of beef was reduced by more than 16 percent from 1977 to 2007. According to the U.S. Environmental Protection Agency, raising cattle accounts for about 1.66 percent of total U.S. greenhouse gas emissions.

The critics say: “Eating beef is bad for you and the planet.”

The science says: **Beef is environmentally and nutritionally efficient.** Each serving of beef requires less land, water and energy than in the past while providing 10 essential nutrients to your diet.

The critics say: “If you eat beef, you should only eat grass-fed beef.”

The science says: **All beef is grass-fed.** All cattle, regardless of where they are “finished” spend the majority (about 80 percent) of their lives grazing on pasture. According to my research, much of the reduction in beef's carbon footprint is due to raising cattle on grass pasture then finishing them the last 120-180 days on an optimal, balanced diet of grasses, grains and other forages in a feedyard.

The critics say: “Grass-finished beef is more sustainable than grain-finished beef.”

The science says: **According to the research, it takes 226 more days for grass-finished cattle to reach market weight than grain-finished cattle, meaning more land, water, feed, manure and carbon emissions.** Therefore, cattle that spend their entire lives eating grass may present more environmental challenges.

The critics say: “Eat meat one less day a week to improve your health and the health of the planet.”

The science says: **If everyone in the United States ate one less meatless meal per week, this is equal to .44 percent of the U.S. carbon footprint (using Environmental Protection Agency data).** This one single action will not save the planet but could have a very negative impact on public health.

The critics say: “World hunger could be eliminated if meat consumption decreased considerably because the quantity of land currently used to raise livestock could instead be used for human food crop production.”

The science says: **Approximately 85 percent of U.S. grazing lands are unsuitable for producing crops due to climatic, topographic or soil limitations.** The supposition that cattle compete with humans for nutrient resources is unfounded. Grazing cattle on this land more than doubles the area that can be used to raise food and helps us feed a growing population in the United States and abroad.

Learn more at: www.ExploreBeef.org

