

# Sustainable Beef and Our Health

## Beef and the Environment

Only **1.9%** of total U.S. greenhouse gas emissions in 2014 were a result of beef cattle production.<sup>3</sup>

If all of the USA's 314 million inhabitants removed meat from their diet for one day per week, the annual reduction in national greenhouse gas emissions would be equal to **0.30%**.<sup>2</sup>

Advances in U.S. beef production have decreased greenhouse gas emissions per pound of beef by **9-16%** from the 1970s to today.<sup>1,7</sup>



## Beef and Human Health

Lean beef, as part of a healthy, higher-protein diet, can help people **lose weight and fat** while maintaining muscle to support a healthy heart.<sup>9</sup>

Animal proteins are complete, high-quality sources of **all nine essential amino acids**, while plant proteins tend to lack one or more amino acids.<sup>4,6</sup>

Lean beef is an excellent source of **readily available zinc**, an essential nutrient that fuels thousands of bodily processes.<sup>5</sup>

A recent study showed that up to 4-5 ½ ounces of lean beef, eaten daily as part of a heart-healthy diet and active lifestyle, can help **lower cholesterol**.<sup>8</sup>



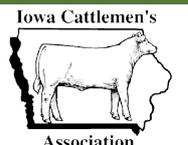
“A way that stewardship is important to us is looking at what we can do from a management standpoint to ensure that the cows and calves in our care never have a bad day. One of the steps we took was incorporating rotational grazing for our herd.”

-Dan Hanrahan, Madison County Beef Farmer

In just one 3 oz. cooked serving, beef provides **50% of your Daily Value** (25 grams) of high-quality protein and **9 essential nutrients** including zinc, iron and B vitamins.<sup>10</sup>



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The Smith family, from Nemaha, Iowa, are the 2017 Regional Environmental Stewardship Award Winners. On their farm, they have made substantial changes to protect the environment and improve the sustainability of their 130 year old farm.

For example, the Smiths took their most fragile land out of row-crop production and now use it for pasture, saving soil while producing great beef. They collect data on their feedlot cattle and use that information to improve efficiency and reduce their use of natural resources.

1. Capper, J.L. 2011. The environmental impact of beef production in the United States: 1977 compared with 2007. *J. Anim. Sci.* 89:4249-4261.  
 2. Capper, J. L. 2013. Should we reject animal source foods to save the planet? A review of the sustainability of global livestock production. *South African J. Anim. Sci.* 43: 233-246.  
 3. EPA. 2015. U.S. Greenhouse Gas Inventory Report: 1990-2014. Available from: <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>  
 4. Leidy HJ, et al. The role of protein in weight loss and maintenance. *Am J Clin Nutr* 2015;101:1320S-9S.  
 5. Lönnerdal B. Dietary factors influencing zinc absorption. *J Nutr* 2000;130:1378S-83S.  
 6. Paddon-Jones D, et al. Protein and healthy aging. *Am J Clin Nutr* 2015;101:1339S-45S.  
 7. Rotz, C.A., B.J. Isenberg, K.R. Stackhouse-Lawson, and E.J. Pollak. 2013. A simulation-based approach for evaluating and comparing the environmental footprints of beef production systems. *J. Anim. Sci.* 91(11):5427-5437.  
 8. Roussel MA. Beef in an Optimal Lean Diet Study. *Am J Clin Nutr* 2012; 95(1).  
 9. Sayer RD, et al. Equivalent reductions in body weight during the Beef WISE Study: Beef's Role in Weight Improvement, Satisfaction, and Energy. *Obes Sci Pract* 2017  
 10. Zarevec M, O'Neil CE, Keast DR, Fulgoni VL, Nicklas TA. Lean beef contributes significant amounts of key nutrients to the diets of US adults: National Health and Nutrition Examination Survey 1999-2004. *Nutrition Research*. 2010; 30 (6):375-81.