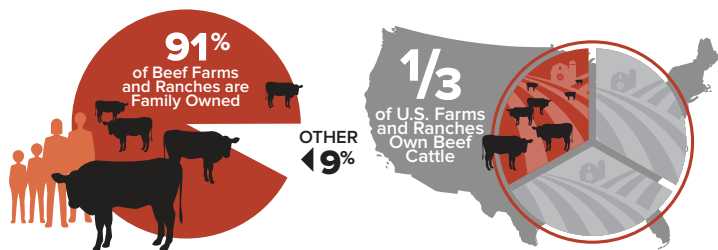
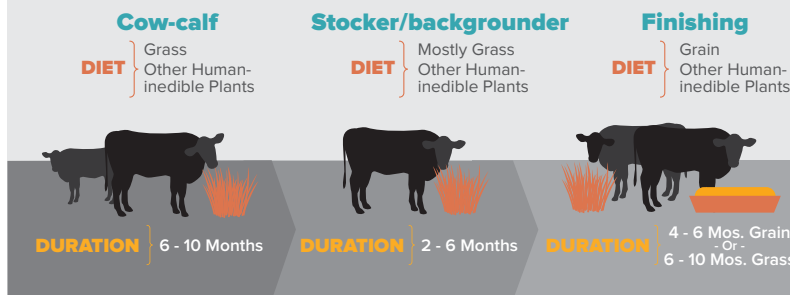


WHAT'S SUSTAINABILITY?

Producing safe, nutritious beef while balancing environmental stewardship, social responsibility and economic viability.



Typical U.S. Cattle Lifecycle



Same Beef, Fewer Cattle

Compared to 1977, today's beef farmers and ranchers produce the same amount of beef with 33% fewer cattle.



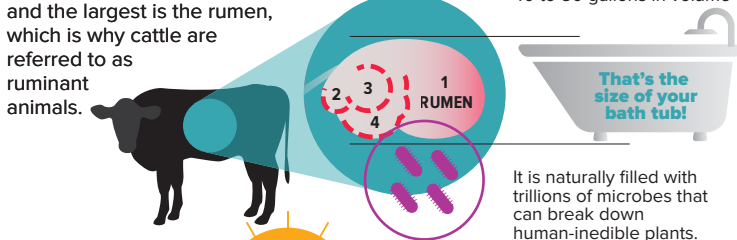
Improved efficiency and animal well-being mean a 16% lower carbon footprint and fewer natural resources used for every pound of beef produced.



The Stomach for the Job

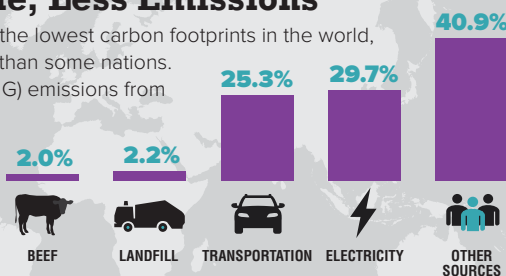
Cattle have 4 stomach compartments, and the largest is the rumen, which is why cattle are referred to as ruminant animals.

A cow's stomach can be 40 to 50 gallons in volume



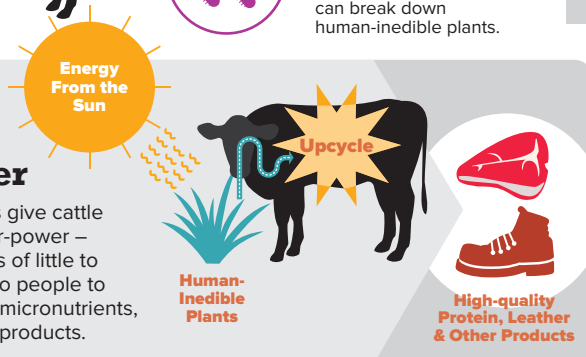
Fewer Cattle, Less Emissions

U.S. beef has one of the lowest carbon footprints in the world, 10 to 50 times lower than some nations. Greenhouse gas (GHG) emissions from cattle only account for 2% of U.S. GHG emissions.

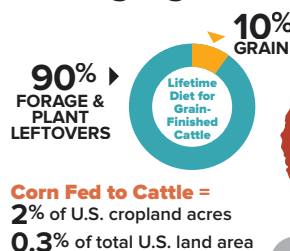


Cattle Upcycling Super-power

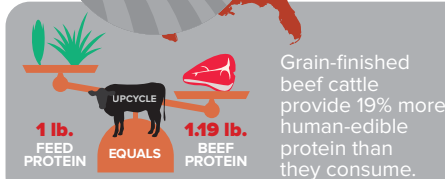
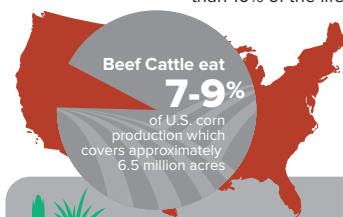
The rumen microbes give cattle their upcycling super-power – cattle upgrade plants of little to no nutritional value to people to high-quality protein, micronutrients, and other important products.



Going Against the Grain



Whether grass- or grain-finished, most of what cattle eat in their life is grass, and less than 10% of the lifetime feed of grain-finished cattle is grain.

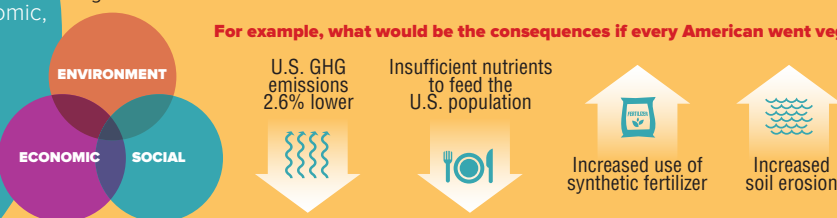


Sustainability is about balancing multiple economic, social, and environmental issues at once, while recognizing tradeoffs.

Sustainability is Bigger Than Carbon Footprints

Relative differences in carbon footprints between animal vs. plant foods don't add up to significant GHG emissions differences at the national level.

For example, what would be the consequences if every American went vegan?



Beef is a Nutrient-rich Food

One 3-ounce cooked serving of a composite, trimmed, retail beef cut contributes less than 10% of calories to a 2000-calorie diet, yet it supplies more than 10% of the Daily Value for 10 essential nutrients including protein, iron, zinc and many B vitamins.

Reference list for Quick Facts on Beef Sustainability:

Brooks, A. et al.; Does grass-finished beef leave a lower carbon footprint than grain-finished beef?
Available: beefresearch.org/beefsustainability.aspx (Tough Question #6)
Capper, 2011. J. Animal Sci. 89:4249-4261.
CAST, 1999. Animal agriculture and global food supply. Task force report No. 135 July 1999.
Herrero et al., 2013. Proc. Natl. Acad. Sci. 110:20888-20893.

NASEM, 2016. Nutrient Requ. of Beef Cattle. 8th revised ed. DOI: <https://doi.org/10.17226/19014>
USDA 2012 Ag Census. Available at: <https://www.agcensus.usda.gov/Publications/2012/#full-report>
USDA-ARS Nutrient Database, SR28, NDB#13364, available at: <https://www.ars.usda.gov/nea/bhnrc/ndl>

USDA-ERS, 2018. Major Land Uses. Available at: <https://www.ers.usda.gov/data-products/major-land-uses.aspx>
USDA-NASS Quick Stats Tools. Available at: https://www.nass.usda.gov/Quick_Stats/
US EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2014. Available at: <https://www.epa.gov/sites/production/files/2016-04/documents/us-ghg-inventory-2016-main-text.pdf>
UN FAOSTAT database. Available at: <http://www.fao.org/faostat/en/#home>
White and Hall, 2017. Proc. Natl. Acad. Sci. 114:E10301-E10308.