

BEEF SUSTAINABILITY FACTS

WHAT'S SUSTAINABILITY?

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



Typical U.S. Cattle Lifecycle

Cow-calf Stocker/backgrounder Grass Other Human-

Mostly Grass Other Human inedible Plants **Finishing**

Grain Other Human-

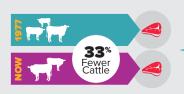


inedible Plants



Same Beef, Fewer Cattle

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





and animal well-being mean footprint and fewer pound of beef



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 1 RUMEN animals.

A cow's stomach can be

40 to 50 gallons in volume

It is naturally filled with trillions of microbes that can break down human-inedible plants

Sustainability is Bigger Than Carbon Footprints Relative differences in carbon footprints between animal vs. plant foods don't add up to

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.

2.0%

TRANSPORTATION ELECTRICITY

25.3%

than 10% of the lifetime feed

29.7%

40.9%

OTHER

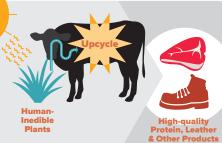
of grainfinished

cattle is

grain.

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

90% > FORAGE & PLANT LEFTOVERS

GHG emissions.

10% GRAIN

Corn Fed to Cattle =

2% of U.S. cropland acres

0.3% of total U.S. land area

significant GHG- emissions differences at the national level For example, what would be the consequences if every American went vegan? U.S. GHG ENVIRONMENT









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:

Broocks, 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. Aca. 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-FRS, 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. Aca. Sci. 114:E10301-E10308.

