

U.S. BEEF

A GLOBAL LEADER IN SUSTAINABILITY & ANIMAL WELFARE

In Brief

American beef cattle farmers and ranchers have known for generations how important it is to keep their animals healthy and contented. Their commitment to providing quality care proves itself in the data: U.S. herds represent only 6% of the world's cattle yet provide 18% of the world's beef (FAO, 2018). In contrast, India and Brazil boast beef operations twice that of the U.S., yet produce just 6.5% and 18%, respectively (FAS, 2021). Beef cattle production, from feed production to animals leaving the feed yard, represents 3.7% of U.S. greenhouse gas emissions (Rotz et. al, 2018). Whether grain- or grass-finished, American beef cattle spend two-thirds of their lives grazing on land that is unsuitable for crops, converting rangeland into safe, accessible protein for millions of people.

Environmental Stewardship: A commitment to continuous improvement

- By embracing scientific research and best practices, American beef cattle farmers and ranchers have avoided 2.3 gigatons of carbon emissions since 1975 (FAO, 2018).
- Beef is as efficient as pork and poultry when it comes to meat production, requiring just 2.6 kgs per kg (2.6 lbs. of grain per lb.) of beef carcass weight (Rotz et. al, 2018).
- The U.S. has had the lowest beef GHG emissions intensity in the world since 1996 (FAO, 2018). Between 1961 and 2018, the U.S. beef industry, through continued sustainability efforts and improved resource use, has reduced emissions per pound of beef produced by more than 40% while also producing more than 66% more beef per animal (FAO, 2018; NASS 2021).
- The U.S. beef production system has the lowest contribution to global greenhouse gas emissions relative to its contribution to global beef production (BCI, 2020).
- Cattle do more than recycle – they upcycle inedible plants into high-quality protein.
- Beef cattle generate 3 times more protein than they eat because their unique digestive system allows them to convert human-inedible plants into high-quality protein (Baber, et. al, 2018). This ability is key to providing useful calories, protein, and an abundance of vitamins for an ever-escalating world population.
- More than 90% of what cattle eat is forage and plant leftovers that are inedible for humans (Brooks et. al, 2017).
- More than 29% of the land in the U.S. is pasture and rangeland that is too rocky, steep, and/or arid to support cultivated agriculture – yet cattle thrive there, coexisting with natural ecosystems while potentially mitigating wildfire risks (ERS, 2021A).

What's Sustainability

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



Social Responsibility: A commitment to future generations

- More than 90% of beef farms and ranchers are family owned. Based on the NASS 2017 Census of Agriculture, the average beef cow herd is 43.5 head (NASS, 2017).
- Beef cattle farmers and ranchers who rely on this land for income run for elected office



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and contribute directly and indirectly to public amenities such as schools. Approximately 39% of beef cattle farmers and ranchers volunteer with civic organizations (NCBA, 2017).

- The Beef Quality Assurance (BQA) program represents more than 80% of U.S. beef supply, and members are trained in sustainability and welfare standards, and are kept up-to-date with the latest innovations, training, and protocols to ensure their animals and farms are cared for properly.
- Meat and poultry is one of the most regulated industries in America. Each processing site is required to have USDA inspectors on site continuously – this protects both animals and consumers, as inspectors are able to stop production immediately if concerns arise.
- Because 78% of cattlemen and women intend to pass their farm on to their children, they strive to leave the land, water and other natural resources in better shape than when they acquired them (NCBA, 2017). A survey of over 700 U.S. beef cattle farmers and ranchers, representing more than 4.39 million animals and 14 million acres of land, found that 99.8% of respondents employ at least one water quality improvement practice, such as providing water sources away from surface water, providing feed or supplementation sites away from surface water, and implementing grazing plans (Loy et. al, 2017).

Economic Profitability: A commitment to long-term viability

- According to the U.S. Department of Agriculture Economic Research Service, in 2018 the economic impact of the beef industry was \$66.24 billion in farm gate receipts for cattle and calves (ERS, 2019).
- Cattle production is the most important agricultural industry in the United States, consistently accounting for the largest share of total cash receipts for agricultural commodities. In 2021, cattle production is forecasted to represent about 17 percent of the \$391 billion for agricultural commodities (ERS, 2021B). In 2020, U.S. beef exports totaled 2.96 billion pounds.

Unintended consequences of eliminating beef

According to research published in the Proceedings of the National Academies of Sciences, if all livestock in the U.S. were eliminated and every American followed a vegan diet, greenhouse gas emissions would only be reduced by 2.6%, or 0.36% globally. This would lead to an increase in the use of synthetic fertilizer and increased soil erosion. Americans would also need to figure out a way to get vitamin B12 (found almost only in animal products), which is responsible for forming red blood cells properly, synthesizing DNA, and neurological function.

Sources

Baber, J.R. et al., 2018. Estimation of human-edible protein conversion efficiency, net protein contribution, and enteric methane production from beef production in the United States. *Trans. Anim. Sci.* 2: 439-450
BCI. 2020. Intensification of Beef Production Aids in Sustainable Beef Production. Kansas State University
Broocks et. al. 2017. Corn as Cattle Feed vs. Human Food. Oklahoma State University
CA Rotz, S Asem-Hiablil, S Place, G Thoma., 2018. Environmental footprints of beef cattle production in the United States. *Agricultural Systems*. Advance online publication. doi.org/10.1016/j.agsy.2018.11.005
ERS. 2019. Cash Receipts by State. USDA
ERS. 2021 A. 2012 ERS Major Uses of Land. USDA ERS. 2021 B. Sector at a Glance. USDA
FAO. 2018. UN FASTAT
FAS. 2021. Livestock and Poultry: World Markets and Trade. USDA
Feedyard Assessment. 2021. Database. NCBA
Loy, et al. 2017. Water Quality and Beef Sustainability. Beefresearch.org.
NCBA. 2017 Cattlemen's Stewardship Review. 2017
NASS. 2021. Quickstats. USDA
White, RR and Hall, MB. Nutritional and greenhouse gas impacts of removing animals from US agriculture. *Proceeding of the National Academies of Science* (2017)



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