### Cattle Grazing and the Land

Cattle producers maintain grazing land which can include open space, woodlands, grass, trees, forests, plains, mountains, valleys and lowlands. Grazing cattle can minimize the invasion of non-native plant species and minimize the risk of wildfires by decreasing the amount of flammable material on the land. Approximately 85 percent of U.S. grazing lands are unsuitable for producing crops. Grazing animals on this land more than doubles the area that can be used to produce food. Cattle serve a valuable role in the ecosystem by converting the forages humans cannot consume into a nutrient-dense food. The National Cattleman’s Beef Association (NCBA) provides support for effective grazing management. The “Grazing Lands Management Plan,” for example, helps beef producers consider the rate of growth and consumption of plants in a given area when deciding how to rotate cattle to new pastures.

### Positive Effect on Wildlife

A combination of livestock and wildlife management on grazing lands has resulted in better species survival than when these activities are practiced separately.

- In the Eastern and Central United States, wildlife is almost entirely dependent on ranch, farm and other private lands; so, ranchers play an important role in the survival of native species.
- A California-based study (*Conservation Biology, Summer 2005*) shows cattle grazing plays an important role in maintaining the wetland habitat necessary for some endangered species.

### Environmental Stewardship

Good environmental practices not only conserve and improve natural resources, they also enhance land productivity. Many beef cattle producers practice natural resource management activities including soil tests, brush and weed control programs, grazing management plans, minimum or conservation tillage systems and range quality and grass utilization monitoring.

- NCBA’s Environmental Stewardship Award Program (ESAP) was established in 1991 in cooperation with the Natural Resources Conservation Services (NRCS). The program recognizes beef cattle operations that effectively combine stewardship and business practices. The program not only highlights industry stewardship, but also provides examples and ideas that may be applied by other livestock operators ([http://www.beefusa.org/ESAP/](http://www.beefusa.org/ESAP/)).
- In 2000, NCBA adopted a livestock production and resource stewardship policy that includes:
  - Managing for the environment as a whole, including climate, soil, topography, plant and animal communities.
  - Monitoring and documenting effective practices as well as regularly soliciting input from a variety of sources to improve the art and science of resource management.
  - Helping develop public and private research projects.
  - Never knowingly causing or permitting public or private land abuses.

### Water Quality

Beef producers ensure proper practices are used to comply with the Environmental Protection Agency’s (EPA) Clean Water Act, established in 1972. The National Pollutant Discharge Elimination System program regulates the discharge of pollutants from Concentrated Animal Feeding Operations (CAFO). ([http://cfpub1.epa.gov/npdes/home.cfm?program_id=7](http://cfpub1.epa.gov/npdes/home.cfm?program_id=7)). A final rule enacted in 2003 ensures that CAFOs take appropriate actions to manage manure in order to protect the nation’s water quality. All large CAFOs (more than 1,000 animals) are required to apply for a permit, submit an annual report and develop and follow a plan for handling manure and wastewater.

### Air Quality

U.S. beef producers are responsible stewards of the air and atmosphere. Their livelihood is closely connected to preserving a healthy, safe and clean environment for food production. Therefore, controlling dust has been a priority land-management practice in America for generations. Beef producers are experienced in using Best Management Practices (BMP) to maintain air quality surrounding their operations.

In addition, animal agriculture contributes minimally to the production of total greenhouse gasses (GHG) according to EPA. Producing food animals contributes to methane and nitrous oxide emissions in two ways: enteric fermentation (a digestive process) and manure management.

- Although enteric fermentation and manure management together comprise 28.4 percent of methane emissions, methane emissions account for less than 7.5 percent of total GHG.
- Carbon dioxide emissions, on the other hand, account for about 84 percent of all GHG. Importantly, animal agriculture does not contribute significantly to carbon dioxide emissions.
- Therefore, the production of food animals (enteric fermentation and manure management) contributes to less than 2.24 percent of total GHG emissions. In comparison, fossil fuel combustion contributes to approximately 79.2 percent of all GHG emissions.

[Funded by The Beef Checkoff](http://yosemite.epa.gov/oar/globalwarming.nsf/UniqueKeyLookup/RAMR6P5M5M/$File/06FastFacts.pdf)

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Updated 10/2007