

BETTER FOR THE ENVIRONMENT

Grassfarming Benefits the Environment

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When properly managed, raising animals on pasture instead of factory farms is a net benefit to the environment. To begin with, a diet of grazed grass requires much less fossil fuel than a feedlot diet of dried corn and soy. On pasture, grazing animals do their own fertilizing and harvesting. The ground is covered with greens all year round, so it does an excellent job of harvesting solar energy and holding on to top soil and moisture. As you will read in the bulletins below, grazed pasture removes carbon dioxide from the atmosphere more effectively than any land use, including forestland and ungrazed prairie, helping to slow global warming.

It's a different story in a confinement operation. Here, the animals are crowded into sheds or kept outdoors on barren land and all their feed is shipped to them from distant fields. On those fields, the crops are treated with fossil-fuel based fertilizers, sprayed with pesticides, and planted, tilled, and harvested with heavy equipment. Each of these operations requires non-renewable fuel. Then the feed is shipped to feed manufacturers where it is dried, flaked or pelleted, and mixed with other ingredients and then, finally, shipped to the waiting animals, using yet more fossil fuel.

There is also a day-for-night difference in “manure management” on the two systems. On well-managed pasture-based farms, the animals spread their manure evenly over the soil where it becomes a natural source of organic fertilizer. The manure improves the quality of the grass, which increases the rate of gain of the animals. It's a closed, sustainable system.

On factory farms, the excrement builds up in the feedlots and sheds where it fouls the air and releases ammonia and other gases to the eco-system. The fumes stress and sicken the animals and farm workers, and they lower the quality of life of people in nearby homes. To get rid of the waste, it is shipped to nearby fields where it overloads the land with nutrients. The excess nitrogen and phosphorus pollute the soil and ground water and drain off into streams, rivers, and estuaries where it can create “dead zones” that threaten the fish population.

Full article at: <http://www.eatwild.com/environment.html>

Cattle Pastures May Improve Soil Quality

United States Department of Agriculture

AgResearch Magazine

The research team, which included retired ARS scientists John Stuedemann and Stan Wilkinson, varied the number of cattle per acre, and over 12 years they assessed how the soils would respond to four different scenarios: moderate grazing (average of 23 steers for every 10 acres), intensive or heavy grazing (35 steers per 10 acres), no grazing and letting the grass grow, and no grazing but cutting the grass for hay. Under each scenario they looked at the amount of soil compaction that occurred, the amounts of soil organic carbon and nitrogen found in the soils, and the amounts of surface plant residues, which help prevent erosion. Soil compaction makes it harder to grow crops. They also looked at the effects on the soil of three different fertilizer treatments (inorganic fertilizer alone, organic broiler litter alone, and a mix of inorganic fertilizer and organic broiler litter).

The team found that fertilizer type made little difference, but different grazing scenarios produced dramatically different effects. Land that was grazed produced more grass than ungrazed land, and grazing led to the most carbon and nitrogen being sequestered in soil. Sequestering carbon and nitrogen in the soil has become a major goal for agriculture because it reduces greenhouse gas emissions. Whether grass was grazed moderately or intensely made little difference on sequestration rates.

Full article at: <https://agresearchmag.ars.usda.gov/2011/mar/soil>

Grass-Fed Cattle Benefit the Environment

U.S. Scientists

Raising The Steaks—Global Warming and Pasture-Raised Beef Production in the United States

Which is better for the environment—raising beef cattle on pasture or in the feedlots? On pasture, says a February 2011 report from The Union for Concerned Scientists (UCS) titled “Raising the Steaks – Global Warming and Pasture-Raised Beef Production in the United States.”

Although all cattle produce greenhouse gases, the UCS has determined that a well-maintained pasture and careful management of the grazing animals can draw greenhouse gases out of the air and store them in the soil where they fuel plant growth. The overall impact is positive. Feedlots have no living plants – just bare dirt and manure; instead of absorbing greenhouse gases, they emit them.

The use of pasture management practices that improve the nutritional quality of forage crops could reduce methane emissions from pasture beef by about 15 to 30 percent.

Full article at:

http://www.ucsusa.org/sites/default/files/legacy/assets/documents/food_and_agriculture/global-warming-and-beef-production-summary.pdf