

Dairy and the Environment

What do farms do with all the manure?

Dairy cow manure is always put to good use. Most of it is spread on the fields as a natural source of fertilizer. Using manure to fertilize the soil has many advantages, including water conservation. Manure increases the water-holding capacity of soil by 20 percent, so less groundwater is needed to grow crops. Manure can also be [composted](#) and sold to local garden stores. Some farmers dry it and use it as a bedding source similar to sawdust. There are even farmers in the US who are able to turn their manure into energy using [methane digesters](#).

For more information, go to:

dairyfarmingtoday.org for information about [cow manure composting](#) and [methane digesters](#)

[Get the Facts on midwestdairy.com](#)

What about manure getting into the groundwater?

Each farm maintains a [Nutrient Management Plan](#), which helps to ensure that the nutrients go into the crops, not the groundwater. Government agencies have strict regulations **for** granting permits for dairy farms, continuous inspection and testing of the water, and recycling manure. Dairy farms rely on quality groundwater; cows need to drink clean water to produce high-quality milk.

For more information, go to:

[Get the Facts on midwestdairy.com](#)

dairyfarmingtoday.org for information about [farm nutrient management plans](#) and [how dairy farmers care for the environment](#)

Do dairy farms use too much water?

No, dairy farmers use water responsibly and judiciously. Many conservation technologies are in place so that as little water as possible is used. For example, water used to clean the milking parlor is reused to clean feed alleys and then to irrigate fields. Using manure to fertilize the soil has many advantages, including water conservation. Manure increases the water-holding capacity of soil by 20 percent, so less groundwater is needed to grow crops.

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[dairyfarmingtoday.org](#)

How have dairy farmers made strides to reduce the environmental impact of producing milk?

According to Cornell University, the dairy community has already reduced its carbon footprint by more than 60 percent between 1944 and 2007, due to improved cow nutrition, cow comfort, quality of the animals, and other improvements. Compared to farms in 1960, USDA statistics show that US dairy farms today are producing almost three times more milk with about half the number of cows. In addition, milk performed better than other beverages in the 2010 Nutrient Density to Climate Impact (NDCI) Index, which compared nutrient density to climate impact.

For more information, go to:

[Get the Facts on midwestdairy.com](http://midwestdairy.com)
[Innovation Center for US Dairy](#)

What is the carbon footprint of milk?

A study conducted by the Applied Sustainability Center of the University of Arkansas found that the carbon footprint of one gallon of milk, from farm to table, is 17.6 pounds of carbon dioxide equivalents (CO₂e) per gallon of milk produced on US farms. The total fluid milk carbon footprint is approximately 35 million metric tons, which means that total US dairy greenhouse gas emissions are only about 2 percent of total US emissions, far lower than had been previously reported.

For more information, go to:

[Get the Facts on midwestdairy.com](http://midwestdairy.com)
[Innovation Center for US Dairy](#)

Do dairy farms produce a lot of greenhouse gases?

According to the US Environmental Protection Agency's US Inventory of Greenhouse Gas Emission Report, dairy production contributes less than 1 percent of US greenhouse gas emissions. Greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide and ozone. Today, producing a pound of milk takes three times less methane than it did in 1924 because of the many efficiencies practiced by dairy farmers. Dairy farmers can continue to find ways to further reduce methane emissions by feeding grains and high-quality forage and by continuing to use other tools such as genetic improvement and superior herd management, according to researchers.

For more information, go to:

[US Environmental Protection Agency](http://www.epa.gov)
[Get the Facts on midwestdairy.com](http://midwestdairy.com)

Is my milk from local dairy farms?

Milk comes from family farms in local communities across the country. There are about 55,000 dairy farms located throughout the US and more than 500 fluid milk processing establishments. There are dairy farms in all 50 states, 98 percent of which are family owned. The other two percent include farms which are university-owned, company-owned (such as Purina and Hoard's Dairyman) and corporately-owned (such as Horizon Organics).

An extensive research study found that it takes about 48 hours (2 days) for milk to travel from the farm to the grocery store. The Midwest is home to more than 9,500 dairy farms and 200 dairy food processing plants. Dairy farm families are committed to producing wholesome, nutritious milk and dairy foods. They depend on US and international markets for the milk they produce. Besides grocery stores, milk from Midwest dairy farms can be found at convenience stores and restaurant such as 7-Eleven, McDonald's, Domino's, and Pizza Ranch.

For more information, go to:

[Get the Facts on midwestdairy.com](http://midwestdairy.com)
[Innovation Center for US Dairy](#)

Do dairy farmers practice sustainable farming methods?

Yes. By combining scientific advancements and on-farm sensibilities, dairy farmers continually look for new ways to be sustainable. Examples of sustainable farming practices include crop rotation to mitigate weeds and improve soil quality, the introduction of beneficial insects to control harmful pests, no-tillage or reduced tillage crop farming for soil and fuel conservation, and the use of new products with enhanced environmental benefits. Today, approximately 41 percent of crop land is cultivated using conservation tillage techniques that leave at least 30 percent of the previous crop residue after planting. This reduces erosion, retains soil moisture and conserves fuel.

For more information, go to:

[Get the Facts on midwestdairy.com](http://midwestdairy.com)

Why have dairy farms become so large and industrial?

Like other business owners, many dairy farm families are expanding to improve efficiencies. These improvements provide you with high-quality, affordable milk and dairy foods. Dairy farms have modernized to provide better cow care, improve milk quality, and use fewer natural resources. Many have also become larger to allow siblings, children or other family members to join the family business. The USDA estimates the average dairy farm in the US is about 200 cows.

All dairy farmers, regardless of their farms' size or ownership, follow strict regulations and best management practices for the health of their families, their cows and their neighbors. The look of the family farm and the technologies may have changed, but the traditional values of caring for the land and animals continue.

For more information, go to:

[Get the Facts on midwestdairy.com](http://midwestdairy.com)

Why can't farming look like it did 40 years ago?

Farming – also referred to as production agriculture – is about feeding the world. According to US Census Bureau data, the world population in 1961 was about 3 billion people; today it exceeds 6.9 billion. By 2050, it is estimated that more than 9 billion people will inhabit the planet. In 1961, the US population was about 184 million people. In 2010, it was more than 308 million, a 67 percent increase.

If agriculture today were no more productive than it was in 1961, it would require expanding farm land by more than 60 percent, or the food supply per person would be that much smaller. Today, it takes less than half as much land on a per person basis to produce our meat, dairy and poultry supply compared to 45 years ago. Increases in agricultural productivity have made this possible.

American farmers provide people with more high-quality food than ever before. In fact, one farmer now supplies food for more than 150 people in the US and abroad compared with just 25.8 people in 1960 — and on less land every year. Production of food worldwide rose in the past half century, with the World Bank estimating that between 70 and 90 percent of the increase resulted from modern farming practices rather than more acres cultivated. Efficiency is one of the core elements of sustainability.

For more information, go to:

[Get the Facts on midwestdairy.com](http://midwestdairy.com)