



ORGANIC

Fact Sheet

America's dairy farmers are dedicated to providing wholesome, high-quality milk and dairy products. All milk in the U.S. is subject to the same strict federal standards for quality, purity and sanitation. The difference between organically and conventionally produced milk is in the process used, rather than the quality or nutritional value of the food.¹

UNDERSTANDING SIMILARITIES AND DIFFERENCES BETWEEN ORGANIC AND CONVENTIONAL

Conventional and organic milk production is similar in many ways: animals are well cared for and proper attention is given to the use of natural resources.

According to the U.S. Department of Agriculture (USDA), milk can only be labeled organic if it is from cows that are exclusively fed organically grown feeds, are kept in pens with adequate space, allowed periodic access to the outdoors and direct sunlight, and are not treated with hormones or antibiotics.²

There is little clear evidence to support claims that organic foods are better. Some studies have been suggestive, others ambiguous. In 1939, the agronomist Eve Balfour, one of the early leaders of the organic movement, split her country estate into two plots, farming one organically and one conventionally. After nearly 40 years of study, she found no consistent or significant differences between them in terms of nutritional value.³

Many factors influence the price of foods, including milk. Organic foods have higher prices than conventionally produced foods. One reason organic milk is more costly is because organic farms must follow the standards that are required to receive the "USDA Organic" label, which may result in higher production costs.

Some people seek to support family farms by buying organic. In fact, data from the USDA show that more than 98 percent of all farms are owned by families—and 98 percent of dairy farms.⁴ Furthermore, about 90 percent are considered by USDA to be "small family farms," with \$250,000 a year or less in income.⁵ There are large and small farms in both the regular and organic categories. Organic farming has to do with farm management practices rather than the size of the farm itself.

Organic milk production has been one of the fastest growing segments of U.S. organic agriculture. Between 2000 and 2005, the number of certified organic milk cows increased an average of 25 percent each year to more than 86,000 in 2005, about 1 percent of all dairy cows. The number of farms specializing in organic milk production more than tripled between 2002 and 2007, to more than 1,600. Many of these are small dairy farms that have switched to the organic system to help improve farm profitability.⁶

Organic milk cows comprised only about 1 percent of all U.S. milk cows, according to figures most recently obtained from 2005. USDA estimates that organic milk's share of U.S. fluid milk sales increased from 2 percent in 2006 to 3 percent in 2008. Growth in the sector has recently slowed, however, as a weaker U.S. economy dampened demand for organic food products.⁶



	Conventional	Organic
Preventative healthcare for animal	Yes	Yes
Antibiotics allowed to treat or cure animal illness or disease	Yes	No
Milk tested for antibiotics and other drug residue	Yes	Yes
Recombinant bovine somatotropin use allowed	Yes	No
Source of animal feed	Conventional source	Organic sources only
Feed products with ruminant by-product	No	No
Size of dairy farm	Any size	Any size
Housing for dairy cows	Any type	Any type

NUTRITIONAL VALUE

Both conventional and organic milk offer a powerful package of calcium and eight other essential nutrients.

When evaluating possible health claims, research does not support a health advantage of organic over conventional milk for any segment of the population.⁷

Despite any differences, a well-balanced diet can equally improve human health regardless of its organic or conventional origin.⁸

MILK SAFETY

Strict government standards, including pasteurization, ensure that milk is pure, safe, and nutritious. The American Dietetic Association (ADA) and U.S. Department of Agriculture confirm that conventionally-produced food is equally as safe as organically produced food.⁹

On every dairy farm, antibiotics are only given when necessary for a prescribed time to treat specific illnesses. The milk from cows undergoing treatment never reaches the food supply.

During 2010, nearly four million tests (3,892,196) were conducted on milk samples to detect antibiotic or other drug residues, with less than 0.03% positive (1,245). Any milk testing positive was destroyed—it never reached the consumer market.¹⁰

Studies show there is no detectable difference between milk from cows that receive supplemental hormones and cows that do not.

While some farmers may choose to treat their cows with hormones produced by biotechnology,

known as bovine somatotropin also called bST or rbST, studies show there is no detectable difference between milk from cows that receive supplemental hormones and cows that do not. The safety of milk from cows treated with bovine somatotropin has been affirmed by the Food and Drug Administration (FDA), World Health Organization (WHO), American Medical Association (AMA), National Institutes of Health (NIH), American Dietetic Association and regulatory agencies in 30 countries.¹¹

All milk, including human breast milk, contains hormones. Protein hormones (like naturally occurring somatotropin and recombinant bST) are digested when consumed just as other proteins are digested.

In 2008, the Journal of the American Dietetic Association published findings from research that compared whole milk samples obtained from retail stores across the U.S. with three label claims related to farm practices: 1. conventional; 2. from cows not treated with rbST; and 3. USDA-certified organic. The research concluded that all three types of milk are virtually identical in terms of quality, safety, and nutritional composition. None of the samples had detectable levels of antibiotics. The concentration of bST in milk were the same regardless of milk label.¹²



TASTE AND FRESHNESS

The taste of milk, regardless of whether it is organically or conventionally produced, can differ slightly from bottle to bottle and season to season. Factors that may impact taste include location of the farm, breed of the cow, variations in cows' feed, and even the time of year. Milk that is ultrapasteurized for longer shelf-life may also have a slightly different taste. People should do their own "taste test" to see which kinds of milk they prefer.

There are more than 55,000 dairy farms located throughout the U.S. and about 485 fluid milk processing establishments.¹³ In fact, most milk travels less than 500 miles before it reaches the grocer's shelves.¹⁴

**U.S. CERTIFIED
ORGANIC LIVESTOCK
..... 2008
BY DAIRYMAX REGION**

State	# Milk Cows
NM	5,350
OK	0
TX	26,727
US Total 249,766	

Source: USDA, Economic Research Service, based on information from USDA-accredited state and private organic certifiers.

Additional Resources: National Organic Program: www.ams.usda.gov/nop

Also refer to Dairy MAX fact sheets "Dairy Food Safety" and "Sustainability and Dairy Farming."

This fact sheet was reviewed by John Fetrow, VMD, MBA; Mike Huijens, PhD; Lloyd Metzger, PhD; JW Schroeder, PhD; and Leo Timms, PhD, in November 2011 for its content and accuracy.

¹ USDA/AMS. National organic standards final rule. <<http://www.ams.usda.gov/AMSv1.0/nop>>. Accessed 2011 November.

² USDA/AMS. 2002, Oct. National organic program organic production and handling standards. <<http://www.ams.usda.gov/AMSv1.0/getfile.d?DocName=STELDEV3004445>>. Accessed 2011 November.

³ Balfour, E. 1977. Towards a sustainable agriculture—the living soil. Speech delivered to the International Federation of Organic Agriculture Movements Conference, Switzerland. <<http://soilandhealth.org/01aglibrary/010116Balfourspeech.html>>. Accessed 2011 November.

⁴ USDA/NIFA. Family and small farms. <http://www.nifa.usda.gov/nea/ag_systems/in_focus/familyfarm_if_overview.html>. Accessed 2011 November.

⁵ USDA. 2010. U.S. farms: numbers, size, and ownership. Family Farm Report. <<http://www.ers.usda.gov/publications/eib66/eib66.pdf>>.

⁶ USDA/ERS. Amber waves—organic dairy sector evolves to meet changing demand. <<http://www.ers.usda.gov/amberwaves/march10/features/OrganicDairySector.htm>>. Accessed November 2011.

⁷ Collins, K. 2006, Nov. Organic milk: what you get for the money. Nutrition Notes, American Institute for Cancer Research. <http://prevention.cancer.aicr.org/site/News2?abbr=pr_hf_&page=NewsArticle&id=10350>. Accessed 2011 November.

⁸ Magkos, F, Arvaniti, F, Zampelas, A. 2003. Organic food: nutritious food or food for thought? A review of the evidence. International Journal of Food Sciences and Nutrition 54(5).

⁹ ADA. 2009, Sept. Organic foods versus conventional foods. <<http://www.eatright.org/About/Content.aspx?id=6812>>.

¹⁰ US DHHS/FDA/CFSN. 2010. National milk drug residue data base. <<http://www.fda.gov/downloads/Food/FoodSafety/Product-SpecificInformation/MilkSafety/MiscellaneousMilkSafetyReferences/UCM244299.pdf>>. Accessed 2011 November.

¹¹ National Dairy Council. Milk and hormones fact sheet. <http://www.nationaldairyCouncil.org/SiteCollectionDocuments/footer/FAQ/food_safety/MilkandHormonesFactSheetAugust2008.pdf>. Accessed 2011 November.

¹² Vicini, J et al. 2008. Survey retail milk composition affected by label claims regarding farm-management practices. J Am Diet Assoc. 108:1198-1203.

¹³ International Dairy Foods Association. 2010. Dairy facts 2010. <<http://www.idfa.org/resource-center/industry-facts/>>. Accessed November 2011.

¹⁴ USDA/NASS. 2010. National Agricultural Statistics Service, 2010. <<http://www.nass.usda.gov/>>. Accessed November 2011.

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