Answers to Commonly – Asked Questions

Dairy Background Information

How much does it cost to produce one gallon of milk?

Input costs, such as processing, labor, transportation and raw product costs, vary considerably. Even the type of milk will have an impact on the final cost, making the cost of producing a gallon of milk inconsistent. However, researchers estimate that it costs between $1.96 and $2.35 for processors to produce a gallon of milk, before transport to the retail store.

How and why is milk pasteurized?

All milk intended for direct consumption should be pasteurized for food safety. Pasteurization is a simple, effective method of killing potentially harmful bacteria without affecting the taste or nutritional value of milk. With standard pasteurization, milk is heated to a temperature of at least 161 degrees Fahrenheit (72° C) for not less than 15 seconds, followed by rapid cooling.

How should milk and dairy products be stored and handled?

After arriving home from the grocery store, dairy products should immediately be transferred to the refrigerator. With proper handling, milk should last five to seven days after its "sell-by" date. The refrigerator should be 38° to 40°F (3° to 4° C) to slow bacterial growth. Store milk in the back of the refrigerator and away from the refrigerator door. This keeps the temperature lower and more constant. The sealed container will prevent contamination and absorption of flavors from other foods in the fridge. If the milk develops an off-odor smell, it should be discarded. Storing dairy products in their original packaging with a securely closed lid will help decrease spoilage.

In the case of other dairy products, such as cheese and yogurt, bacteria play an important role in flavor, function, and good health. Most yogurts, including yogurts made in California, are made by the addition of two or more types of bacteria, including *Lactobacillus bulgaricus* and *Strep-tococcus thermophilus*. These types of bacteria are called "cultures" and work to create distinct flavors and textures in the yogurt. To ensure the safety of yogurt, store it in the refrigerator in its original sealed container. Moldy yogurt should be discarded.

Cheese is also the product of cultures and an aging process that causes fermentation. There is a wide range of production methods that yield many different flavors and forms of cheese. In general, you should follow the same storage tips as milk and yogurt. If mold is on cheese, the block of cheese can generally still be eaten. If a small patch of mold appears on a piece of cheese, trim it off completely by cutting off and discarding at least one-quarter inch below the mold. Plan to consume the rest of the cheese soon. Always check the "sell-by" date before you purchase cheese. If there is mold on fresh cheese, do not purchase it.

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How can people be assured the dairy products they eat are safe?

Personnel from the United States Department of Agriculture, the United States Environmental Protection Agency, and other government agencies continually meet with research scientists, technical experts, farmers, ranchers, and the general public to discuss food safety issues. They establish guidelines and standards for all food processors, handlers, and others involved in food production and distribution. Inspections occur on a regular basis to make sure that dairy products meet government standards and regulations. The United States currently has the safest food supply in the world and continues to work hard to maintain this position. By practicing safe food handling and storage, consumers also play a significant role in food safety.

Why do farmers treat cows with antibiotics?

Sometimes, cows get sick just as some humans do. Without proper medical care, the cows could become seriously ill or die. It is a dairy farmer's job to treat them and make them well again with medications prescribed by a veterinarian. Sick cows still have to be milked, but during treatment their milk is thrown away. Strict U.S. regulations and standards are in place to monitor antibiotic use and assure food safety.

Are there antibiotics in milk?

No. All milk is tested for antibiotics. Any tanker that tests positive is disposed of immediately.

Are there hormones added to milk?

No. Hormones are naturally present in many foods that come from plants and animals, including milk, but farmers don't add hormones to the milk. Some farmers choose to give some of their cows a supplement called bST to increase milk production, but research shows that this practice has no effect on hormone levels in the milk itself.

What is the difference between whole and fat-free milk?

Fat-free milk is made by skimming off the fat. A cup of fat-free milk contains less than one-half gram of fat and is fortified with vitamin A and usually with vitamin D. In the United States, skim or fat-free milk is also known as nonfat milk. Nonfat milk contains comparable amounts of protein, calcium, potassium, phosphorous, and other key nutrients found in higher-fat milks such as whole milk.

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What is the difference between organic and regular milk?
Organic milk is identical in composition to regular milk. Organic dairy farmers use only organic fertilizers and organic pesticides, and their cows are not given supplemental hormones. The milk itself, however, is identical to milk produced conventionally. Stringent government standards that include testing all types of milk for antibiotic and pesticide residues ensure that both organic milk and conventional milk are safe and nutritious.

How are dairy farmers practicing sustainable agriculture?
California has the nation's toughest environmental regulations and a deep commitment to stewardship and innovation. Many California dairy farmers have been practicing "new" sustainability methods for generations. Here are some of the ways dairy farmers practice sustainable agriculture:

Homegrown Feed: California dairies grow much of their own feed. Locally grown and fertilized crops save water, fuel, and fertilizer.

Waste Watchers: Many food products that were once sent to landfills are now fed to cows, including culled tomatoes, almond hulls, bakery crumbs, and more.

Water Wise: Water is a precious commodity. Clean water is used to care for cows and recycled water is used to wash the barn and irrigate crops.

Powering Up: More and more dairies are exploring the opportunities of biogas digestion. This promising technology can generate power for the dairy and its neighboring communities, all while reducing greenhouse gases.