Dairy Words A-Z

These common dairy words and their definitions come from the Dairy Dictionary at Dairy Farming Today.

– A –

- **Antibiotic**: Medication that kills or slows the growth of harmful bacteria. Sometimes it’s necessary for farmers to treat cows with antibiotics when they are ill, just as humans sometimes need medication when they are sick. Cows that are treated with an antibiotic are milked separately from the healthy herd. All milk is **tested** to ensure that antibiotics are kept out of the milk supply.

- **Artificial Insemination (AI)**: An advanced breeding process that involves collecting sperm from a male, inspecting it for quality and freezing it until it is ready to be artificially inserted into a female. Studies show that AI is safer and more efficient than using natural insemination. In addition, AI is one of many modern techniques that helps dairy farmers improve the genetics of their herds.

- **Ayrshire**: A breed of dairy cattle that originated from the County of Ayr in Scotland. The average mature Ayrshire cow weighs 1,000-1,300 pounds and has red markings that can vary in color from orange to brown. (*Read more about the various breeds of dairy cattle.*)

– B –

- **Biotechnology**: A technology based on biology that is used for agricultural, food science or medicinal purposes. In agriculture, the process involves creating or modifying DNA to impart beneficial genetic traits.

- **Bovine**: Of the biological subfamily Bovinae. This diverse group features about 24 species of medium-sized to large ungulates (animals with hoofs) such as domestic cattle. Other members include bison, water buffalo and yak.

- **Brown Swiss**: A breed of dairy cattle that originated on the Swiss Alps. Known for producing the second largest quantity of milk annually of any dairy breed, their milk averages 4 percent butterfat and 3.4 percent protein which makes it ideal for cheese production. Brown Swiss are gray-brown in color and are known for their immense size, large ears and docile temperament. (*Read more about the various breeds of dairy cattle.*)

- **Bulk Tank**: A refrigerated, stainless steel storage tank located at the dairy, designed to hold milk as soon as it leaves the cow. The milk is cooled immediately in the bulk tank, usually to 35-39 degrees F. The milk is then collected by a bulk tank truck and shipped to a processing plant.
• **Bull:** An adult male dairy animal. Young male dairy animals are known as bull calves.

• **Butter:** Butter is produced by churning the fat from milk or cream until it solidifies. The butter mass is washed and sometimes salted to improve keeping qualities.

• **Butterfat:** Also known as milkfat, this is the fatty portion of milk. Milk and cream are often sold according to the amount of butterfat they contain. In the United States, there are federal standards for butterfat content of dairy products.

– C –

• **Calf:** A young female dairy animal before she has matured. A young male is called a bull calf.

• **Casein:** The dominant protein (80 percent) in cow’s milk. Casein is vital to cheesemaking, and has a variety of uses in manufacturing as well.

• **Cloning:** creates a genetic “twin” of another animal. A cloned animal has the same DNA as its parent, much like identical twins share the same DNA. Many types of animals have been cloned in the past 20 years. The process involves transferring genetic material from one animal to the egg of another, then implanting the embryo in a host female for conventional development and birth.

• **Colostrum:** The first milk given by a dairy cow following birth that is rich in fat and protein and has immunity elements. Colostrum is given to newborn calves in the first 24 hours of life.

• **Compost:** Soil amendment and fertilizer made with biodegraded animal residuals, leaves, sawdust, grass clippings, soil and/or water. ([Read about how dairy farmers use & recycle compost](#)).

• **Cream:** Milk is separated by large machines in bulk. Cream is the high-fat milk product separated from milk. The cream is processed and used to produce various products with varying names, such as “heavy cream” or “whipping cream.” Cream contains at least 18% milk fat. Some cream is dried and powdered and some is condensed by evaporation and canned.

• **Cud:** The partially digested food that is regurgitated from the first compartment of the cow’s stomach into the mouth to be chewed again. A cow may spend seven hours a day consuming food and an additional 10 hours a day chewing her cud.

• **Curd:** The clumps of protein and other milk components that are formed during the cheese making process. Curds are pressed into blocks or barrels for proper aging and curing of the cheese.

– D –

• **Dairy Nutritionist:** An animal health professional who specializes in the nutritional needs of dairy cows. Nutritionists recommend optimal diets to farmers and monitor how cows respond to their feeding program.

• **Dry Cows:** A cow that is not producing milk (lactating). The “dry” period lasts 50-70 days when a cow is preparing to give birth to a calf, which begins a new lactation period.

– E –
- **Ear Tag:** A device dairy farmers place in the ears of their animals to identify each individual animal in the herd. Ear tags contain a number that is given to that particular cow and allows for the dairy farmer to maintain accurate health and milk production records.

- **Factory Farm:** A term used to refer to larger-scale farms. According to USDA, 99% of dairy farms in the U.S. are family-owned and operated.

- **Family Farm:** Proprietorships, partnerships or family operations that do not have hired managers. A recent USDA report shows that 99% of dairy farms in the U.S. are family-owned and operated.

- **Forage:** Cow feed that is high in fiber and low in digestible nutrients. Examples include whole plants of corn, small grains (such as oats, barley, or wheat), legumes and grasses.

- **Freestall Barn:** A type of facility to house dairy cows that provides the animals with a clean, dry, comfortable resting area and easy access to food and water. The cows are not restrained and are free to enter, lie down, rise and leave the barn whenever they desire.

- **Fresh Cow:** A cow that has recently given birth to a calf.

- **Guernsey:** A small, cream-and-brown breed of dairy cattle that produces more milk per unit of body weight than any other breed. Guernseys are renowned for the high butterfat content of their milk. The Guernsey was bred on the British Channel Island of Guernsey and descended from cattle stock brought from nearby Normandy.

- **Hay:** Dried feed such as rye, alfalfa, clover, grass and oats, which is used as a food source for dairy cows. A hay pasture is mowed and the trimmings dry in the sun for two to three days. The hay is then gathered by a piece of farm machinery called a baler that processes it into varying sizes of bales, which can be rectangular or round.

- **Heifer:** A female dairy animal that has yet to give birth to a calf.

- **Herd:** A grouping of cows on a dairy farm. Cows are often placed into herds with other cows of their age or milking status such as dry cows and heifers.

- **Holstein:** A black and white dairy cow (though there are some “Red Holsteins”) that is the most predominant breed of dairy cattle worldwide. The Holstein originated in the province of Friesland, The Netherlands. They are known for having the highest milk production of all of the breeds of dairy cattle.

- **Homogenization:** A process applied to milk that results in fat globules being reduced in size to allow a smooth consistency.

- **Hoof Trimmer:** A trained professional who specializes in the trimming of a cow’s hooves on a regular basis in order to maintain comfort. Hoof trimmers are trained to detect disease, injury or other hoof-related problems and can advise farmers on treatments.
**Hormone:** A chemical messenger from one cell (or group of cells) to another. Hormones are naturally produced by nearly every organ system and tissue type in a human or animal body. All milk naturally contains hormones. References to hormones on milk packaging refer to whether the dairy farmers producing that milk use a supplemental hormone with their cows.

**Hutch:** An individual housing unit designed for young calves.

**Irrigation:** The replacement or supplementation of rainfall with water from another source in order to grow crops. Irrigation sources include a nearby or distant body of water such as a river, spring, lake, aquifer, well or snowpack. The water can be directly channeled to the fields or stored in a reservoir for later use.

**Jersey:** A breed of dairy cattle that is renowned for the high butterfat content of its milk. Jersey cows are smaller than other breeds (800 to 1,200 pounds) and are known for their big eyes, honey-brown color and docile natures.

**Lactation:** The secretion of milk from the cow’s udder.

**Lagoon:** A manure storage basin dug into the ground like a pond and earthen lined to prevent absorption into the soil. Solids settle to the bottom and bacteria and microorganisms break down the manure, resulting in a nutrient-rich “wastewater” with less odor that can serve as a natural fertilizer when spread on fields.

**Mastitis:** An inflammation of a dairy cow’s milk ducts while she is lactating. Mastitis is usually caused by bacteria and can be treated with antibiotics.

**Methane Digester:** Technology that converts cow manure into methane gas that is burned as fuel to generate electricity.

**Milking Machines:** Machinery used by dairy farmers to extract milk from cows. Electronic milking machines use a pulsating vacuum that simulates the effect of a suckling calf. The machines do not cause any harm or discomfort to the cows and they keep the milk safe from external contamination.

**Milking Parlor:** A specialized area on the dairy farm where the milking process is performed. Cows are brought into the parlor two or three times a day. Parlors come in many types and names, including flat barn, herringbone, parallel, swing, walk-through and rotary.

**Milking Shorthorn:** A breed of reddish-brown and white dairy cattle that originated in Britain. They are large in size.
- **Nutrient Management Plan:** A planning resource that defines the nutrient needs of crops and the amount, sources, placement and timing of fertilizer applications to maximize nutrient uptake of the crop and improve yields. Implementation of nutrient management plans should protect the environment, maintain crop productivity and increase profitability.

- **Organic Milk:** Milk and milk products can be labeled “USDA organic” if the milk comes from farms that meet USDA’s National Organic Program standards. Organic milk is just one of many options in the dairy case to fit different lifestyles and personal preferences.

- **Pasteurization:** Pasteurization is a simple, effective method to kill harmful pathogens through heat treatment without affecting the taste or nutritional value of milk. Since its introduction over a century ago, pasteurization has been recognized around the world as an essential tool for protecting public health. The process was named after its inventor, French scientist Louis Pasteur.

- **Pasture:** Land at a dairy farm that is lush with vegetation cover such as grasses or legumes and is used for grazing dairy cows.

- **Pesticides:** Any substance created to prevent, destroy or repel pests — such as insects, plant pathogens, weeds, nematodes and microbes — that destroy property, spread disease or are a nuisance. The EPA has strict regulations about farm practices involving the use of pesticides and the FDA tightly monitors foods for pesticide residues.

- **Processing Plant:** A facility that pasteurizes, homogenizes and packages milk that comes directly from dairy farms. Once the milk leaves the processing plant, it is available to the public through a variety of channels, including grocery stores, schools and restaurants.

- **Raw Milk:** Raw milk is milk that has not been pasteurized before consumption.

- **rBGH or rbST:** bST (bovine somatotropin) is a protein hormone that occurs naturally in all dairy cows. Some farmers choose to supplement some of their cows with rbST, also known as bovine growth hormone (rBGH), to help increase milk production. The safety of milk from rbST-supplemented cows has been affirmed and reaffirmed since it was approved for use in the U.S. in the early 1990s.

- **Replacement Heifers:** Female dairy animals that are raised with the intent of eventually replacing the cows currently in the milking herd.

- **Rumen:** Cows have one stomach that is divided into four compartments, the largest being the rumen. The rumen allows cows to regurgitate forage and re-chew their cud for further digestion.

- **Ruminant:** Any hooved animal, such as a dairy cow, that digests its food by first eating the raw material and then regurgitating a semi-digested form known as cud. These animals then eat their cud, a process called ruminating. Other ruminants include goats, sheep, camels, llamas, giraffes, bison, buffalo and deer.

- **Runoff:** Water from rain, snowmelt or other sources that flows over the land surface and is a major component of the water cycle. Dairy farms take measures to control the amount of runoff from their farms through the use of drainage systems and retention ponds.
- **Silage**: Fermented, high-moisture forage that is eaten by grazing animals such as dairy cows. Silage is most often made from grass crops such as corn or sorghum and retains a great deal of the nutrients present in the plant.
- **Silo**: A storage facility on farms that is designed to store silage.
- **Skim Milk**: The product left after the cream is removed from milk is called skim, skimmed or fat-free milk.
- **Somatic Cell Count (SCC)**: The number of white blood cells per milliliter of milk or measurement of the number of somatic cells present in a sample of milk. All milk naturally contains some somatic cells, which enable cows to fight infection and ensure good health. Farmers routinely monitor their herds for somatic cell counts as a general gauge of the cow’s well-being.

- **Teat**: The appendage on a cow’s udder through which milk from the udder flows. Dairy cows commonly have four teats.
- **TMR (Total Mixed Ration)**: A nutritionally-balanced blend of forage and grain ingredients mixed by a machine to specific rations. This method allows cows to consume the desired proportion of forages when two or more forages are offered.

- **Udder**: The encased group of mammary glands on a dairy cow.

- **Veterinarian**: Animal doctors who have earned a degree in veterinary medicine. Sometimes called “large animal veterinarians” or “livestock veterinarians,” many specialize in the treatment of dairy cows and work directly with dairy farmers at their farms to ensure healthy herds.

- **Whey**: The watery part of milk that separates from the curds during the cheese-making process. The composition of whey varies considerably, depending on the milk source and the manufacturing process involved. Typically it is rich in lactose, minerals, vitamins and protein.