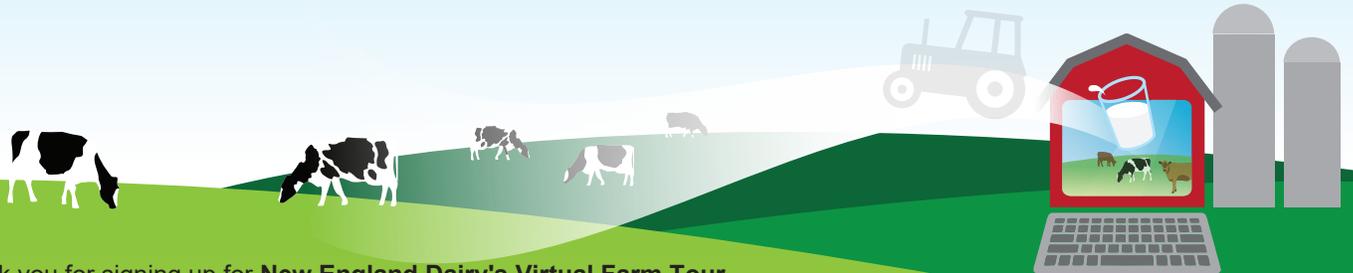


virtual farm tour

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Thank you for signing up for **New England Dairy's Virtual Farm Tour**.

We are excited to take you on a tour of a New England dairy farm. This document contains frequently asked questions and a vocabulary list useful for students in **grades 7-12**. We encourage you to use this resource prior to the tour, as some of these questions may be asked during the tour via the Zoom Webinar polling feature.

Frequently Asked Questions for Grades 7th-12th

How much milk does a cow give each day?

Most dairy cows are milked two to three times per day. Depending on breed and size, a cow can produce 6-10 gallons a day.

How much do cows eat and drink a day?

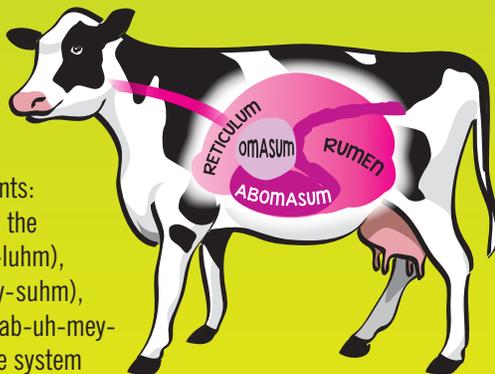
Cows eat about 100 pounds of feed and drink 30-50 gallons of water a day.

What do cows eat?

Cows eat a total mixed ration (TMR), which is a combination of hay, grain, silage and proteins (such as soybean meal), plus vitamins and minerals. Farmers employ a dairy cow nutritionist to develop scientifically formulated and balanced diets for their cows.

How many stomachs does a cow have?

A cow has one ruminant stomach with four compartments: the rumen (roo-min), the reticulum (ri-tik-yuh-luhm), the omasum (oh-mey-suhm), and the abomasum (ab-uh-mey-suh m). This digestive system allows a cow to be the ultimate recycler. They can convert plants that humans cannot eat into a nutritious food — milk.



Do you separate the cow and calf?

Yes, dairy farmers separate the cow and calf shortly after freshening (a.k.a. giving birth.) This allows the farmer to monitor the health of both the calf and cow closely and provides a safer environment for the calf. It also allows the cow to be milked on a schedule, as she produces more milk than the calf needs to consume.

Do all cows produce milk or when do cows produce milk?

All cows need to give birth to a calf in order to produce milk. Cows usually have their first calf when they are around two years old.

Can the cows go outside?

There are a variety of ways to care for cows based on geography, availability of land suitable for grazing, and weather conditions. Some farms in the northeast have the facilities that allow them to pasture their cows, but they still use barns because of the region's weather conditions. These farms still use barns, due to the weather conditions in the region. Many of today's dairy farms use freestall housing, a type of barn that allows cows the freedom to move around, eat and sleep wherever they choose. In this type of barn, feed for the animals is available in a feed alley (a clean and smooth surface), which cows can access 24 hours a day. It also protects them from the harsh winter weather in the northeast. Regardless of housing style, all farmers put cow care as the top priority.

How long does a cow live?

On average, cows live 8-10 years.

How long do cows sleep each day?

Cows spend 10-14 hours resting (laying down) or sleeping. Farmers provide them with comfortable and clean areas to rest in.

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Vocabulary List: Grades 7th-12th

Artificial Insemination (AI): A breeding process that involves collecting sperm from a male (bull), inspecting it for quality and freezing it until it is ready to be artificially inserted into a female. Because having bulls on the farm can be dangerous for both employees and cows, AI is safer and more efficient than using natural insemination.

BMP (best management practice): When used on-farm it is a practical, cost-effective action that farmers can utilize to conserve water and reduce the amount of pesticides, fertilizers, animal waste, and other pollutants entering water resources. A BMP is intended to support water quality and conservation, while maintaining or improving agricultural production.

Bovine: Of the biological subfamily Bovinae. The formal term for cow.

Bulk Tank: A refrigerated, stainless steel storage tank located at the dairy, designed to cool and hold milk as soon as it leaves the cow.

Bull: A male dairy animal. Younger male dairy animals are known as bull calves.

Calf: A young dairy animal before it has matured (birth to four months.)

Colostrum: The first milk given by a dairy cow following freshening (giving birth) that is rich in fat, protein and has immunity elements. Colostrum is given to calves in the first 24 hours of life.

Cover crop: This is usually a legume or grass planted to help with erosion control and improving soil structure, moisture, and nutrient content.

Cud: The partially digested food that is regurgitated from the first compartment of the cow's stomach into the mouth to be chewed again. Chewing cud is a sign a cow is comfortable and content.

Dairy Nutritionist: An animal health professional who specializes in the nutritional needs of dairy cows. Dairy farmers work with these individuals to create the optimal rations (these are the meals the cows eat) for their cows.

Dry Cows: A cow that is not producing milk (lactating). The "dry" period is 50-70 days before a cow freshens (gives birth).

Ear Tag: A identification tool dairy farmers place in the ears of their animals. This allows dairy farmers to track the health records and life events of each cow.

Forage: This is a feed stuff that makes up the majority of a cow's total mixed ration. A forage includes 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 and comfortable resting area with convenient access to food and water. The cows are free lie down in any stall they chose.

Freshen: This refers to when a cow is giving birth to a calf.

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

Group Housing: A form of housing calves in groups of 10-20. Usually, includes an automated feeding system.

Hay: Dried feed such as rye, alfalfa, clover, grass and oats, which is used as a food source for dairy cows.

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

Herd: A grouping of cows on a dairy farm.

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 hoof health and comfort.

Hutch: A form of housing for calves that allows farmers to raise them in individual pens.

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

Manure storage: This is a designated (pad, pit, pond, lagoon, tank, or building) area of the farm for the holding of manure prior to utilization on the farm.

Milking Machines: Machinery used by dairy farmers to remove milk from cows. The milking machines have a gentle pulsation that milks the cow in complete comfort.

Milking Parlor: A specialized area on the dairy farm where the cows are milked. Parlors come in many types and names including flat barn, herringbone, parallel, swing, robotic and rotary.

No-till: This practice is growing crops and managing fields without the use of turning up (tilling) the soil. It helps promote soil health and less erosion.

Nutrient (or manure) management: This is an on-farm practice that focuses on balancing soil nutrient inputs with crop requirements. It helps benefit crop growth, farm profitability, and the protection of local and regional water sources.

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.

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 alfalfa. It retains a great deal of the nutrients present in the plant.

Tillage: The act of stirring up or cultivating the land in preparation for planting crops.

TMR (Total Mixed Ration): A nutritionally-balanced blend of forage and grain ingredients mixed by a machine. This method allows cows to consume exactly what they need in every bite. Dairy farmers work with a dairy cow nutritionist to create these rations.

Udder: The cow's mammary glands.

Veterinarian: An animal doctor who has earned a degree in veterinary medicine.

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