

VIRTUAL DAIRY FARM TOUR

Questions and Answers

Calf Care

How are the calves taken care of?

- When calves are born, farmers take the best care of their calves!
- Farmers make sure where they are born is clean, and provide colostrum, the first milk from their mother. This milk has the antibodies the calf needs since they are born with a suppressed immune system.
- Holstein calves average 65-100 pounds when they are born.
- Calves are given vaccinations to protect them as they grow.
- Calves on average eat five to six quarts of colostrum when born, and eat three to eight quarts of milk a day depending on age and size!

Identification

- Calves are given ear tags to help farmers identify each animal. The ear tags have a number that is unique to that animal on it; sometimes the ear tags also include the date the calf was born and other information depending on the farm. Getting the ear tags is just like getting your ears pierced.

What do you do with the male calves?

- At birth, male calves are fed, vaccinated and taken care of just like the heifer calves. Depending on the farm, the bull calves may be sold to another farmer who will raise them as beef animals, or the farm may keep the bull calves.

Do the babies change color as they get older?

- Calves are each born unique just like we are. They have different markings that will not change.

Cow Care

What is the lifecycle of a cow?

- Everything dairy farmers and their teams do is to take the best care of their cows.
- To learn more about how calves are cared for, please see that section of this document.
- Dairy cows start giving milk when they are about 2 years old.
- The average age of dairy cows is about 5 years old. Some cows live much longer; it depends on the individual cow and their family history.
- When the cow no longer provides milk, she has a second career of providing us nutritious beef.

Where do the cows live?

- Most dairy cows in Michigan live in barns due to our weather. The barns provide farmers the ability to watch over every need of the cows.
- Here's a blog that explains the many reasons dairy cows live in barns: [Why are cows in barns?](#)

What does a day look like for a dairy cow?

- Dairy farmers provide their cows everything they need.
- Each day they eat a nutritious meal that is determined for them by a dairy nutritionist. Dairy cows have access to fresh water. They can also lay down when they want, which is most of the day! Cows spend up to 14 hours each day resting. The rest of the time they are eating, drinking and heading to the milking parlor.

How do you ensure safety for all animals on the farm?

- Dairy farmers and their employees do everything they can to care for their animals to make sure they are safe from the Michigan weather elements and any predators that may make their home across the state.

VIRTUAL DAIRY FARM TOUR Questions and Answers

Cow Care continued

How many stomachs does a cow have?

- Dairy cows have one stomach with four compartments.
- Here's a fun blog post with more details: [Do cows really have four stomachs?](#)

Do cows get vaccinated?

- Just like we receive vaccinations, so do dairy cows. At different times in their life, dairy farmers and their veterinarians provide vaccinations to protect their herd and keep them healthy.

What happens if cows get sick?

- If a cow gets sick, the farmer works with the veterinarian to diagnose the animal and create a plan to help her get better.
- This plan may include giving antibiotics to the cow. If the cow receives antibiotics, detailed records are kept of which medicine, how much and which days the cow receives them. The milk from this cow is discarded and cannot leave the farm until it tests free from antibiotics. There are protocols in place to ensure the milk stays safe.

How many babies can a cow have?

- Generally, cows have one baby at a time. Sometimes they can have twins or triplets, but multiple births can be hard on the mother.

Have you had cows with food allergies?

- According to a dairy nutritionist, the person who creates the meal plan for cows, dairy cows do not have food allergies.

What is the gestation period?

- Cows are pregnant for 280 days, or nine months.

Do brown cows make chocolate milk?

- All cows make white milk!
- Chocolate, or strawberry or other flavorings are added to the milk after it is pasteurized at the processing plant.

Are there flies on dairy farms?

- Farms do attract flies, but since flies are a pest, dairy farmers take precautions to make sure the environment is not conducive to flies. They clean the cows' pens regularly and make sure there is no standing water that will grow flies.

The Milking Process

What is the milking process?

- Cows love to be milked! Cows are milked two to three times a day, depending on the farm. Cows walk into the milking area that we call the parlor.
- The farmer takes individual hand-sized towels to clean off any dirt on the cow to ensure cleanliness of the milk.
- Then they use a disinfectant (typically iodine or a similar product) to kill potential harmful bacteria. Each teat (there are four total on the udder) is dipped with the disinfectant.
- They use another clean towel to wipe off the disinfectant before hooking up the milking unit. The milking unit is only on the cow for 5 – 7 minutes!
- The cows are dipped with a post dip (iodine) at the end of the milking process so bacteria can't enter into the udder.
- After milking is complete, the cows head back to their pen to eat, drink water and rest.

How much milk do cows give a day?

- On average cows give 65-110 pounds of milk a day. That's 7-9 gallons of milk a day!
- Michigan cows give on average 25,957 pounds of milk per year!

Do cows like to be milked?

- Yes! Cows love the feeling of letting down their milk. Cows can hold around 50 pounds of milk in their udder at a time. That is a lot of milk to hold in!

VIRTUAL DAIRY FARM TOUR Questions and Answers

The Journey of Milk

What is the journey of milk?

- Did you know that milk gets from the farm to your school in only 48 hours?
- Cows are milked at the farm and the milk is cooled on the farm.
- The milk truck pumps the milk into the insulated truck and takes the milk to a processing plant.
- At the processing plant, the milk is tested for temperature, antibiotic and bacteria amounts. If the milk passes the tests, the milk is then pasteurized to kill any harmful bacteria. If the milk fails the test, it is promptly removed and not sold. Once pasteurized, milk is made into dairy foods, or it put into milk jugs to come to your house!
- Check out our [Milk is Local Poster](#) to include in your classroom!

Where does the milk go?

- Most farmers belong to a dairy cooperative that helps them market their milk. The cooperative finds the processing plant that wants the milk for their dairy foods. For example, the milk may travel an hour to get to a plant that will make it into yogurt or the delicious chocolate milk you drink during lunch.

How would we know if we drink milk from farms in Michigan?

- The next time you grab milk out of your fridge, look for the five-digit code on your milk gallon. The first two digits represent the state where the milk was pasteurized and the additional three represent the dairy plant! Michigan's code is 26. Visit whereismymilkfrom.com to see where your dairy foods are from.

Do you have to add anything else to the milk before it is ready to be drank?

- No! All milk you buy at school or the store is safe to drink. There are tests and protocols in place to keep the milk safe. When the milk from the farm arrives at the dairy plant, it must pass multiple tests before unloading. It's tested for antibiotics, temperature and bacteria. If it passes all the tests then the pasteurization process starts. If it doesn't pass all the tests, then the milk will be disposed of.

Dairy Business

How did you get the cows?

- Most dairy farms are passed from one generation to the next, meaning the first family member to have purchased the cows could have been decades ago!
- For those farmers who enter into the dairy business themselves, or those families who purchase more cows, they will either attend a cattle sale or purchase cows from a neighboring farm.

Who do farmers employ?

- Dairy farms work with a lot of team members. On a regular basis, dairy farmers may employ:
 - Herdsperson – someone who watches over all the animals
 - Milker – those who collect the milk from the cows
 - Calf feeder – someone who takes care of the calves
 - Feeder – this person mixes all the feed for all the animals on the farm
 - Veterinarian – visits the farm to help set protocols to keep cows healthy
 - Nutritionist – develops the meal plan to feed the cows
 - Agronomist – this person tests the soil to ensure it has the nutrients needed to grow the crops
- Others they may work with include:
 - Electricians
 - Construction workers
 - Truck drivers

How many hours do farmers work each day?

- Dairy farms run around the clock since farmers care for animals. Many employees have specialized tasks and times they are needed on the farm.
- During the spring, summer and fall, the amount of work may increase on a dairy farm as the crops are grown and harvested to feed the cows for the next year.

VIRTUAL DAIRY FARM TOUR Questions and Answers

Dairy Business, continued

Do dairy farms recycle?

- Yes, dairy farms recycle!
- Dairy farms conserve and reuse water on their farms. The water that helps cool the milk is either fed to the cows or used to clean the barns.
- Farmers also recycle old tires that are cut and used to hold down the plastic that covers the cow feed.
- The cow manure is collected and taken to the field as nutrients for the crops to grow.

Explain the history of dairy farming.

- For a full timeline of dairy farming, see the poster on this dairy curriculum page: ymiclassroom.com/lesson-plans/udim
- While you're there, check out the videos and other stories about dairy.

Why do people wear boots when they work on the farm?

- Dairy farmers wear boots to protect their feet around large animals and equipment.
- In the winter time, the boots and sometimes extra pairs of socks, keep their feet warm.

How much money is made from selling the milk?

- The price dairy farmers receive for their milk is determined by a formula that includes many factors, including the amount of milk being produced around the world and the demand for dairy foods.

Is this a hard job to do?

- There are aspects of dairy farming that are hard or challenging. Each day is different, which many dairy farmers and employees enjoy.

How much money does it cost to feed the cows?

- The amount that dairy farmers pay for their feed depends on many things.
- Some dairy farmers grow the crops that are harvested to feed their cows.
 - They will have to pay for the seeds, the equipment to plant the seeds, the help from the agronomist who helps them determine what to plant, where and when.
 - They may also have to purchase fertilizer to give nutrients to crops or insecticides to protect the plants from insects.
 - At the end of the growing season, they will have to harvest the crops grown.
 - They will need to pay for the people to help this entire process.
- The farmers who do not grow their own feed, will need to purchase it from a neighboring farm.
- Both will purchase vitamins and minerals to add into their cows' food to ensure they receive all the nutrients they need.

Feeding the Cows

How do farmers harvest corn and where does it go?

- Big equipment, called choppers, will chop the entire corn plant into a truck or wagon that takes the silage back to the farm. The farmers will store it for the entire year.
- You can learn more directly from a Michigan dairy farmer in these blogs:
 - Corn silage harvest: [Harvesting hard work](#)
 - Haylage harvest: [Making haylage](#)

What do cows eat? How much?

- Here's a blog post about what cows eat: [What do cows eat?](#)

What do cows drink? How much?

- Cows drink about a bathtub full of water – it's always available to them so they can stay hydrated.

VIRTUAL DAIRY FARM TOUR Questions and Answers

Dairy Nutrition

Does goat milk have the same nutrients that cow milk has?

- Cow milk and goat milk are similar in nutrition content, including lactose (milk sugar). Goat and cow milk also have similar proteins, so a person allergic to cow's milk would be advised to avoid goat milk as well. The biggest difference is in the cost. Goat milk costs five times or more than cow's milk. An 8 oz. glass of goat milk will cost about \$1.25 while the same serving of cow's milk will cost less than \$0.25.
- Here is an article with additional information: milklife.com/articles/nutrition/differences-between-goat-milk-vs-cow-milk

Do farmers drink the milk their cows produce?

- Farmers drink the same milk that we do and that could be milk from their farm.

Some people can't digest milk, are there options for them?

- Some people have lactose intolerance, a sensitivity to the carbohydrate in milk known as lactose which causes some digest issues like bloating or an upset stomach. These people aren't allergic to milk, so they can enjoy lactose free versions of real dairy milk. Lactose free milk is made with a natural enzyme (lactase) the helps breakdown the lactose making it easier to digest. People with lactose intolerance can often enjoy low lactose foods, like hard cheeses, without experiencing stomach upset.

What nutrition does milk provide?

- Milk has a unique combination of nine essential nutrients: high-quality protein, calcium, phosphorus, vitamins A, D, and B12, riboflavin, niacin, and pantothenic acid. Each of these nutrients is a key ingredient of milk, and they all work together to help keep our bodies healthy. Milk also helps to fill nutrition gaps in the American diet. Nutrient-rich dairy supplies three of the four nutrients of concern identified by the Dietary Guidelines. These nutrients are calcium, potassium, and vitamin D. [Dairy Nutrition Facts](#).

Why are there different types of milk?

- There is something in the dairy case for everyone! Full-fat (whole) milk is rich and creamy which many people enjoy. Whole milk is recommended for very young children (1-2 year olds) to provide nutrition and extra calories from the milk fat to support growth. Lower fat milks are often enjoyed by older children and adults to help reduce the amount of total fat, and calories, in their diet. Fats, especially saturated fat, are important to limit in the diet of some people with certain types of heart disease. Skim milk is the best choice for these people.
- Flavored milk, including chocolate, contains the same essential nine nutrients as white milk. It is also a great choice for young athletes to fuel for physical activity, replenish fluid and electrolytes post-exercise and support bone health to reduce risk of stress fracture. [Kids and Chocolate Milk infographic](#).

Other

Do farmers enjoy their job?

- Yes! Farmers love caring for their animals and their land. Farming is hard work, but rewarding. Farmers enjoy planting seeds and watching them grow into plants that help make cow casserole to feed the cows.

What happens if the power goes out when milking?

- During power outages there are backup generators that help farmers continue to milk the cows and keep the milk in the bulk tank, or "big refrigerator," cool.