

Milk on the mo-o-ve!



A



Eating right.

For a cow to make milk, she needs good food such as grass, chopped corn, hay, mixed feed (ration) and water.

Photo Courtesy of Minnesota Extension Service

C



Cow to Cooler.

Milk from the cow goes through a sanitized pipeline to a refrigerated storage tank.

Photo Courtesy of Minnesota Ag in the Classroom

A cow that eats only grass can make about 50 glasses of milk a day. A cow that eats grass, corn, hay and mixed feeds can make about twice that much!

A cow can consume 30 gallons of water, 40 lbs. of grain and hay and 50 lbs. of silage in one day! Her 90 lbs. of food would be equal the weight of about 1440 slices of bread.

B



Milking time.

Cows on a modern farm come into a computerized milking parlor. A cow's udder is washed to keep the milk clean. Next, a milking machine is attached that gently squeezes the milk from the cow's teats.

Photo Courtesy of Minnesota Extension Service

D



Get truckin'.

The milk flows from the storage tank into a refrigerated tanker truck that takes the milk to a processing plant.

Photo Courtesy of Land O' Lakes

Milk is 87% water.



Computers help farmers keep files on each cow, including:

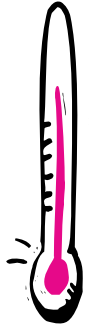
- food needs
- health records and family tree
- amount of milk produced
- signs of bacteria in her milk
- and even when her calf will be born!

On many modern farms, a cow's identity is stored in a computer chip on her neck chain. Information about her is automatically recorded each time she comes into the parlor for milking.



Did you know...

- A cow doesn't produce any milk until she's had her first calf, which is born when she's about two years old. After that, she usually has a calf every year.
- Most of the milk produced in the Midwest is made into cheese — a good way to store milk for a long time. (How might that affect prices of drinking milk in Midwest stores?)
- Most cows give about 5 1/2 - 7 gallons of milk a day. Milk weighs 8.6 lbs. a gallon. How many eight-ounce glasses full of milk does the cow give each day?



Milk is pasteurized (heated to 161 degrees F for 15 seconds, then rapidly cooled) to kill bacteria.

E

Computers help all during the process.

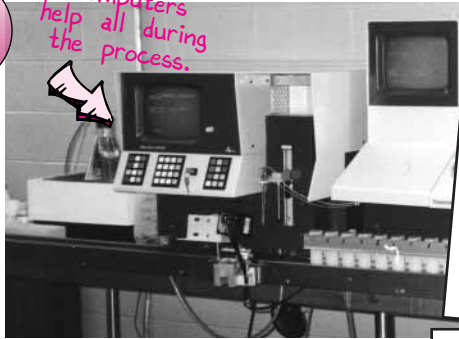
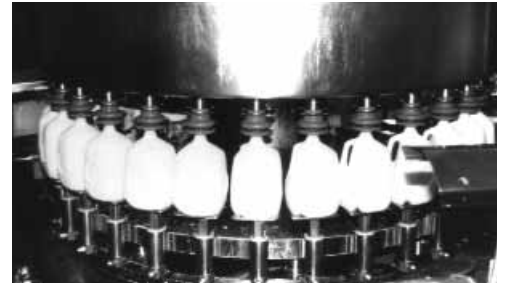


Photo Courtesy of Land O' Lakes

Check and re-check.

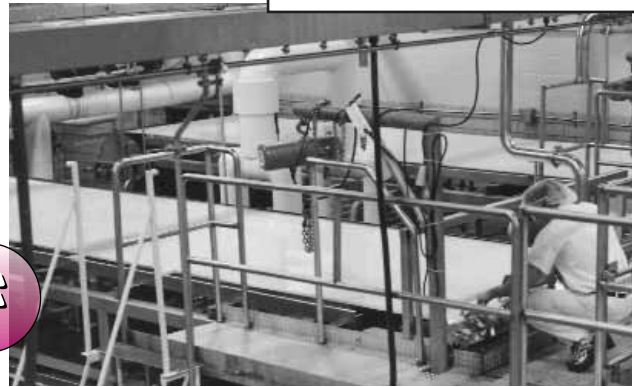
Milk is sampled and tested as it comes from the farm and many more times during processing to make sure it is clean and safe.

Photo Courtesy of Bongards Creameries



Milk is bottled for drinking and made into many other dairy products.

Photo Courtesy of Land O' Lakes



If milk is to be made into cheese, it goes from pasteurizing into huge vats. Cheese makers make many different kinds of cheese.

Photo Courtesy of Bongards Creameries

From farm to table, milk never touches human hands. That's to make sure it stays clean and pure.

True or False

- ___ 1. A dairy cow gets every second year off as vacation from milking.
- ___ 2. All cows are female.
- ___ 3. Vitamin D occurs naturally in milk.
- ___ 4. It takes 3-5 minutes to milk a cow with a milking machine.
- ___ 5. Cows are milked once a week.
- ___ 6. Pipelines and milking equipment are washed and sterilized once a month.
- ___ 7. Pasteurization is the process of heating raw milk to kill harmful bacteria.
- ___ 8. Milk for drinking is homogenized. That means the milk and the cream in it are blended so the cream doesn't rise to the top.
- ___ 9. Almost half of all milk sold is for drinking and cream. The rest is processed into butter, cheese, ice cream and many other dairy products.
- ___ 10. One-percent milk means the milk is one-percent water.
- ___ 11. Yogurt and cottage cheese are dairy products.

F

G



Here cheese slices are coming off casting lines. This cheese will be cut into slices and wrapped in single packages.

Photo Courtesy of Bongards Creameries

H



From the processing plant, it's on the road again. Refrigerated delivery trucks distribute dairy products to grocery stores.

I



Photo Courtesy of Minnesota Extension Service

Fresh from the dairy case. Look at all your choices!



Photo Courtesy of American Dairy Association of Minnesota