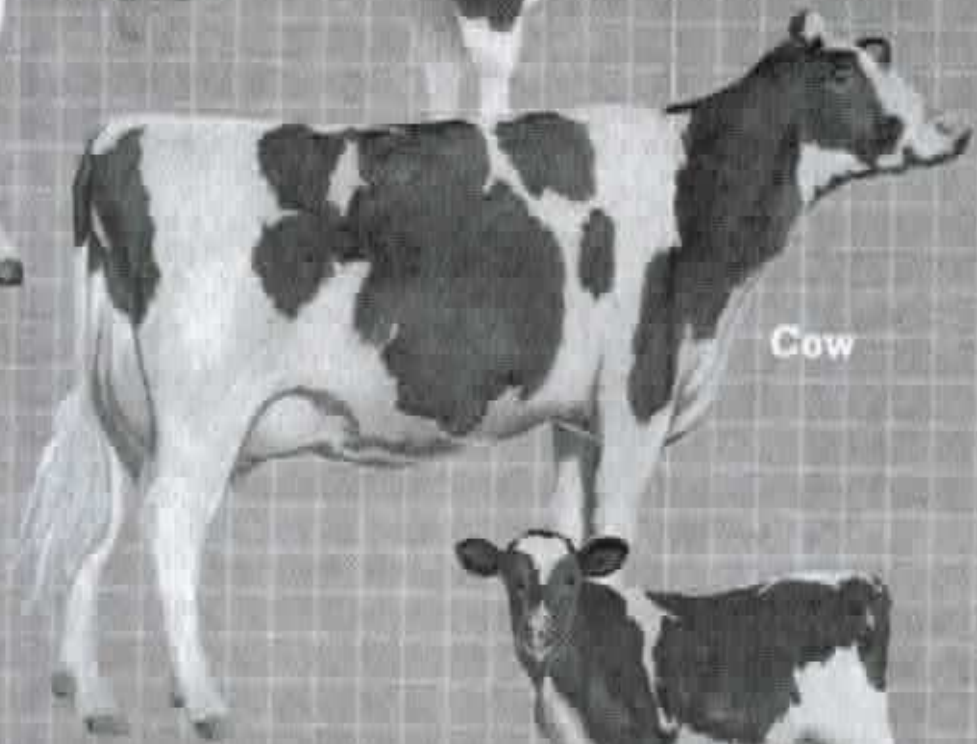


Bull



Cow



Calf

DAIRY CATTLE

[Small signature]

DAIRY CATTLE

Background Information

Dairy cattle were first brought to North America in 1624 to the Plymouth Colony, in what is now Massachusetts. Wisconsin and California lead the United States in milk production. Minnesota ranks sixth in number of milk cows and milk production.

Growth and Feeding

After her calf is born, a cow begins producing milk. This is called "freshening." A cow can only freshen after she has given birth to a calf.

The first milk the cow gives is called colostrum, which contains nutrients and antibodies that the calf needs to stay healthy. The calf is weaned immediately after birth and fed the mother's milk with a large nursing bottle.

Cows are milked by machine, usually twice a day, every 12 hours. If they are milked at 3 p.m., they must also be milked at 3 a.m. Cows are milked for 305 days or about 10 months. Then the cow's body needs to rest and store nutrients before she has her next calf. After the calf is born, the cow will resume giving milk.

The average dairy cow in Minnesota produces 18,700 pounds of milk in 305 days. That's nearly 2,174 gallons of milk. Milk is stored in refrigerated tanks at the dairy farm until it is picked up by a refrigerated tank truck and taken to a dairy processing plant. There the milk is homogenized, pasteurized and put into containers. Different refrigerated trucks deliver the packaged milk to stores.

Dairy Cattle Nutrition

Most heifers are bred to freshen at two years of age. After they give birth, they join the dairy herd and produce milk. The male calves can be sold to feedlots where they are fed until they are taken to market for their meat.

Dairy cattle are ruminant animals with four compartments in their stomachs; their digestive tract is the same as beef cattle. Dairy cows weigh 1,300 to 1,500 pounds and are fed a total mixed ration. This ration has everything a cow needs for a nutritious diet. They eat grains such as ground corn, grain sorghum, oats and soybean meal.

Dairy cows also are fed forages, such as high-quality alfalfa and whole corn plants (silage). A single cow can consume up to 30 lbs. of grain and concentrated feeds and 60 lbs. of hay and silage each day. Water is another important nutrient for dairy cows; every day they need to consume about 35 gallons of water or the equivalent of a full bathtub.

Many dairy producers use computers in their feeding operations. The computer reads the cow's identification and gives her a proper mix of grains, vitamins and minerals. This is determined by her age and how much milk she produces.

99% of all dairy cattle in the U.S. today are of the Holstein breed, which are large-bodied with a distinctive black-and-white coat. This breed gives a large quantity of milk. The smaller-bodied breeds—Guernsey, Jersey and Brown Swiss—give a high-protein milk.

Products

One Day's Production
(about 6 lbs.)

7.0 gallons of milk
or
2.9 lbs. of butter
or
6 lbs. of cheese



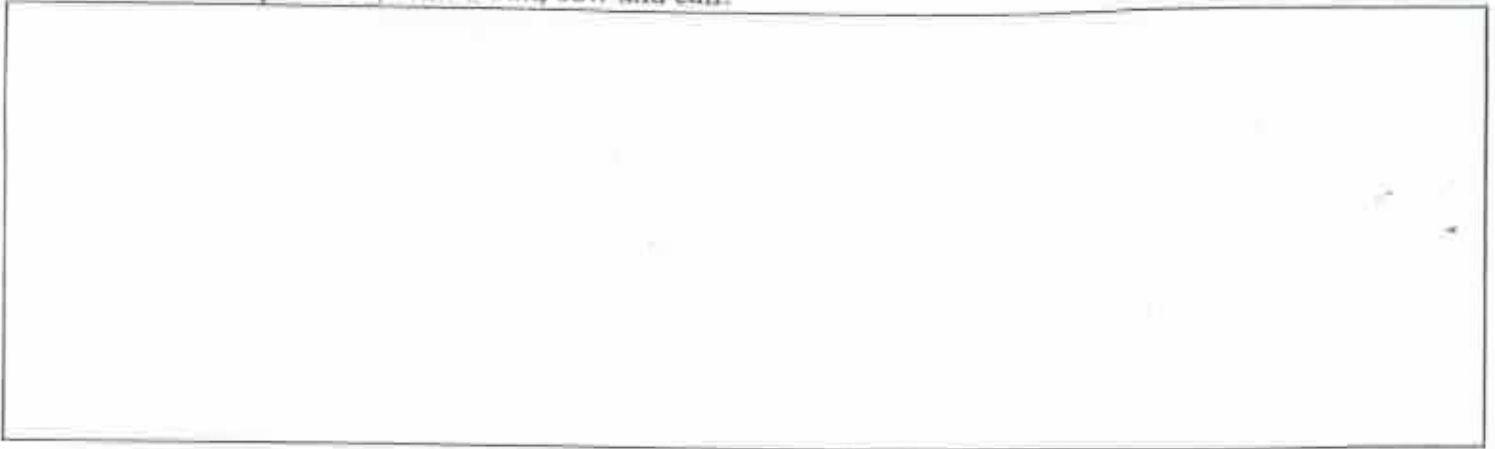
Top 10 Minnesota Counties in Milk Production in 2007:

Stearns, Winona, Morrison, Otter Tail, Goodhue, Wabasha,
Stevens, Todd, Fillmore and Benton

- 99% of all U.S. households purchase milk. The average American consumes almost 25 gallons of milk a year... that's 400 glasses.
- Milk and other dairy products provide 72% of the calcium in the United States' food supply plus energy, protein and vitamins. Chocolate milk is made by adding sweetener and chocolate or cocoa to white milk. Cheese, butter, ice cream, yogurt and sour cream are also made from milk.
- A Holstein's spots are like a fingerprint or snowflake. No two cows have exactly the same pattern of spots.

DAIRY CATTLE

1. In the box provided, draw a bull, cow and calf.



2. When were dairy cattle first brought to North America?
3. How much milk does an average dairy cow in Minnesota produce?
4. How much milk does the average American consume?
5. What do milk and dairy products provide?
6. Using your map of Minnesota counties, create a symbol for dairy cows and mark the top 10 counties that produced milk in 2007.