

# Milk Production On A Dairy Farm

## Fifth Grade

Dairy cows are mammals, and like all mammals, they produce milk (lactate) to feed their young. Modern dairy cows are bred to produce large amounts of milk. The amount of milk a cow gives is monitored and measured in pounds. Careful records are kept on each dairy cow to know how much milk each one is producing. The information is used to make adjustments in their care and feeding. What a cow eats and how it lives does affect its milk production. Dairy farmers employ veterinarians, dairy nutritionists and other professionals to provide the best care possible. Dairy cows are not pets. They are working animals, and it is their job to produce the milk we drink.

Dairy cows come in different sizes and breeds, but most tend to be very large animals. The largest are the Brown Swiss and the Holstein (1500 lbs.). The smallest is the light brown Jersey cow (900 lbs.). Other popular breeds for milk production are the Ayrshire, Guernsey and the Milking Shorthorn.

Babies born to cows are called calves. A newborn female calf is called a heifer. A male calf is called a bull calf. Heifers are considered adults at one year of age. At two, a heifer will become a mother and have her first calf. After the calf is born, the heifer will start lactating and producing milk. From then on the animal is called a cow. And, depending on whether the cow is being milked or not, it will be identified as a fresh cow or a dry cow.

Dairy cows are on yearly schedules for milk production. Every year a dairy cow has one calf or maybe twins. After the calf is born and lactation begins the calves are moved to hutches where they live. Farm workers bottle feed the calves twice a day until they can drink milk on their own. For the next ten months, the lactating cows are milked two or three times a day. After the ten months, they get a two-month break from milking and time to rest before the next calf is born and lactation begins again. The resting cows are called dry cows. On average, a dairy cow will produce between six and seven gallons of milk every day. During the ten months of milking, one dairy cow will produce about 2000 gallons of milk.

Fresh cows are milked two or three times a day because the udder can get quite heavy and uncomfortable from carrying several gallons of milk. (The weight of one gallon of milk is 8.61 lbs.) An udder that is too full can also become painful from the pressure of the milk. Milking relieves the pressure and helps make the cow feel better.

The feed given to dairy cows is particularly important. Just like people, cows need to eat nutritious food for strength and energy. It takes lot of energy to produce milk, and a cow needs to be strong and healthy. To ensure production of high quality milk, lactating cows need to be fed a high quality diet with the right amount of nutrients in the grains and hay. Alfalfa is preferred to grass hay because of its high nutritional value. Dairy cows need a lot of food. Generally they will eat between 50 and 60 pounds of hay and grain and drink between 30 and 40 gallons of water every day. During the rest period, the nutrition needs of dry cows change so the farmer adjusts the feed accordingly.

Because dairy cows have calves every year, the lactation cycle restarts every year. The cows on a dairy farm are not all on the same schedule. While many are getting milked, others are resting. This makes it possible for milk production to continue nonstop. There is never a day when all the cows on a dairy farm are on vacation at the same time. There are always cows to milk two or three times a day, every day, on a dairy farm.

