

Cow Questions

1. What impact does cold, wet weather have on cows?

The cows use a lot more energy to keep their body temperature warm. The weather, just like us, makes us more vulnerable to colds and flues also. If mud gets into the teats it can cause mastitis – an infection that affects not only the cow but the quality of milk.

2. What impact does hot, dry weather have on cows?

The heat causes cows to be uncomfortable which in turn causes them not to chew their cud which makes the milk less rich in butter fat. They don't feel like eating or drinking in the heat, so they produce less milk.

3. What impact does the weather have on crops, both feed for cows and feed that is sold?

Too much rain zaps the protein out of feed – way too much drowns the crop. Too much sun and not enough rain means nothing grows.

4. What diseases do we deal with within the dairy herd?

A lot of common diseases; affects respiratory system which the dairy farmer vaccinates and tries to prevent.

5. Do you use antibiotics on a dairy farm?

Yes

6. What are antibiotics and what are they used for?

Sometimes cows get sick just like people do. When that happens, we sometimes give them antibiotics to help make them well again. The milk from that cow does not go into the milk supply until she is well again and the antibiotic is no longer in her body. Milk is tested several times before it is bottled.

7. We realize that antibiotics are “zero tolerance” at dairy plants, how do they test to be sure milk is safe?

They run the test tubes taken from each dairy farm before the big tankers are empty. In the rare event that inspectors find any antibiotic residues in the tanker, the milk is dumped to make sure the milk you drink is safe.

8. Are milk and dairy foods really subject to 17 government required and voluntary industry safety checks from farm to table?

Yes, milk and dairy products are among the most highly regulated foods available. Pasteurization is the most important food safety tool in use in the world today.

9. Do you use computers to help your dairy records?

Yes, name and number of each cow.

10. What do you record on the computers?

We record production of each cow, history of cows, birthdates, reproduction (births) each cow has.

11. Some dairies have a feed consultant come once a month, what do they do?

The consultant looks the herd over. After looking at the herd’s manure he can tell if they are digesting their food and adjust their diet accordingly.

12. Some dairies have a veterinarian come by once a month or more. What do they do?

The veterinarian checks the cattle to see which ones are pregnant and the overall health of cattle.

13. Some dairies have a field man come once a month to test the production of each cow.

How do they do this?

He has a special meter he hooks to each milk machine and these meters tell the dairy farmer how much milk each cow gives.

14. How many times a year is a dairy inspected by a state inspector?

5-6 times a year, a state inspector comes to the dairy unannounced.

15. How many times a year is a dairy inspected by a federal inspector?

Federal inspectors and unannounced and vary from year to year.

16. What do they look for?

Build up in milk pipeline and milk tank medicine labeled right, extra clean walls, ceilings and floors, cow lots cleaned, no holes in screen door.

17. Do dairy farmers help protect the environment? What do they do with the manure?

Dairy farmers abide by strict laws and regulations to protect our earth, water and air. To do that, America's dairy farmers work in partnership with the U.S. Department of Agriculture (USDA) and the Environmental Protection Agency (EPA) and state government regulators to ensure that their farm remains clean and employ environmentally sound production practices. At our dairy we scrape the lots and haul the manure and spread it and work it in the ground on certain fields, this fertilizer is excellent for the next year's crops.

18. How many years do cows get milked?

Average years of lactation are 7 years.

19. How many pounds of milk does it take to make one pound of cheese?

10 pounds of milk makes 1 pound of cheese

20. How many pounds of milk does each cow give each day?

55-60 pounds average in the United States

21. How many pounds does it take to make one gallon of ice cream?

11.6 pounds or 22 cups of milk to make one gallon

22. Why do dairy farmers record cow's milk in pounds instead of gallons?

Because pounds are a more accurate measurement, farmers are paid by the pound for milk.

23. How many pounds are in a gallon of milk?

8.6 pounds – water is 8.9 pounds

24. How many cups of milk does one cow give a day?

One average cow fed with quality feeds can give 90-100 cups of milk and more depending on the cow.

25. If a cow does not get quality feeds, does it really affect how much milk the cow will give?

Yes, if the cow gets quality feeds she can produce 100 cups (even more) per day, however, if the cow just eats grass all day she may only produce 50 cups.

26. How many times a day does the cow get milked?

On our dairy 2 times, however some dairy farms milk 3 times a day.

27. Once you start milking a cow do you keep milking her everyday? What will happen if you don't?

Once you start to milk a cow you have to milk her everyday, if you don't she will not continue to give milk, she can also become ill with an infection in her udder called mastitis.

28. What time do you milk the cows?

5:00 am / 5:00 pm

29. Do you have to milk at a certain time? Why?

You can milk any time as long as you milk 2 times a day and about 12 hours apart. If a cow is not milked at least every 12 hours she will be uncomfortable (the udder feels full and this causes discomfort). She will give less milk for example a cow being milked 2 times a day giving 70

pounds will give 77 pounds if milked 3 times a day. So if she is not milked the opposite happens. If never milked again she will dry up and will not be able to produce milk again until she has a baby calf. A lot of the times if a milking gets missed it can cause an infection called mastitis in the udder.

30. Does the milking hurt the cow?

No, the milking feels good to the cow.

31. Where does the milk come out at?

The milk comes out of the little hole, called an orifice at the tip of each teat.

32. How do you make the milk come out? When you wash the cows udder off it feels like a massage. The massage sends a signal to the cow's brain to release the milk.

33. How long does it take to milk a cow, by hand? By machine?

It takes 12-20 minutes to milk by hand. It takes about 5 minutes with a machine.

34. What's the very first thing that has to be done to the cow before you can milk her?

The udder is washed with a special iodine mixture that kills germs and the iodine also has a moisturizer to keep their udder from drying out and getting chapped.

35. Once outside the cow where does the milk go?

Milk is never exposed to air because it has no protection from contaminants; it goes untouched by human hands to the milk tanks in our milk house room. It is cooled within a few minutes to 38 degrees. The next day the truck (thermos on wheels) will take it to the plant. The second day (after pasteurization, vitamin D added, and homogenization) the milk is on the market shelf. 2 days out of the cow it is on the market shelf or in your school.

36. Is it true milk is never touched by human hands?

Yes, milk goes directly from cow into the milkpipes and is vacuumed into the milk tank (thermos on wheels).

37. What temperature is the milk when it comes out of the cow?

The milk is the same temperature of the cow which is about 101 degrees.

38. Why is it so important to get the milk cooled to 38 degrees so quickly?

Actually milk is quickly cooled to 38 degrees and held there. It's important to cool quickly so the milk stays fresh.

39. How do you get it cooled so quickly?

We have a special machine called a pre-cooler that cools the milk with cold water (from 101 to 76) from there it is pumped into the milkholding tank which cools it to 38 degrees in just minutes.

40. Where do you store all that milk?

Special tanks that are like thermos very well insulated in the milk house room of the barn, the temp of milk should be 38 degrees.

41. How do you get the milk from the farm into these big trucks?

The milk is pumped from the milk tanks to the big trucks by a vacuum on the truck and a big hose hooked to the bottom of the milk tank to the milk truck..

42. How often do those big trucks pick up the farmers milk?

Every 2 days, the huge dairies pipe their milk right into semi trucks and they cool the milk just like our special tanks.

43. Where do the big trucks take the farmers milk?

To the nearest dairy plant, in our case, is Wichita's Highland Dairy Plant.

44. What do they do with the farmer's milk when it reaches the city?

Milk samples are first tested in a lab to ensure that only the purest milk is used. Milk that is not top quality or that hasn't been kept cold will show on these tests, and this milk is not processed for people to drink. The milk is then homogenized then pasteurized and Vitamin D is added then bottled and sent out to be sold.

45. Is milk really one of the safest foods?

Yes, there are so many tests done before milk is put on our tables.

46. How long does it take milk to be at the grocery store after it leaves you cows?

2 days

47. Is milk really considered "nearly perfect food"?

Yes, milk is our best single food.

48. What are the primary nutrients found in milk and dairy products?

Calcium, riboflavin, Vitamin D, protein, Vitamin A, potassium, magnesium, phosphorus, niacin, Vitamin B12.

49. What vitamins are added to milk at the processing plant? How do they add them?

They add Vitamin D concentrate to the milk. You need to attend a dairy tour to learn how they add Vitamin D.

50. How do they do the pasteurization and homogenization?

Homogenization cause fat globules in whole milk to be fragmented into tiny molecules that will not regroup. Milk is pasteurized by 2 methods. The holding process requires the heating of the milk to 143-145 degrees Fahrenheit for 30 minutes and the cooling rapidly. The flash process is accomplished by heating the milk to 160-180 degrees Fahrenheit for 15 seconds and then cooling.

51. How much milk or milk servings should you have a day?

Children age 1-3 year need 3 servings. (Child serving is 2/3 cup milk) Age 4-8, 3 servings, Teens 9-18 need 4, Age 19-50 need 3 and adults age 51+ years need 4 servings.

52. What does milk do for your health?

Give us strong bones and teeth, health skin, gives us better night vision.

53. What other products does milk make?

White and chocolate milk (and other flavors), buttermilk, cheese, cottage cheese, yogurt, ice cream and frozen yogurt, butter, cream, sour cream, whipped cream.

54. How much milk is consumed as fluid milk and how much milk is used for other products in the USA?

This varies depending on time of year (school kids drink milk). This information will be given at the dairy tour also.

55. What dairy products are the most popular in the USA?

Cheese, ice cream, yogurt.

56. What does Grade A milk mean?

Years ago they put grades on milk according to quality. Grade A milk is top quality.

57. What is raw milk?

Raw milk is just out of the cow – not pasteurized.

58. How much food does one cow eat in a day?

One cow eats 90 pounds of food in one day.

59. What kinds of foods do cows eat?

Cows eat alfalfa hay, corn, hominy, distillersgrain, baking soda, cottonseed, depending on the state or country because most foods for cows are raised close to the dairy farms.

60. How much water does one dairy cow drink in a day?

One dairy cow drinks 25-50 gallons in a day.

61. Why do some farmers put gold fish in their farm tanks?

The gold fish help keep the water clean by eating the algae and the food that comes into the tank off of the cow's mouth.

62. Do cows have more than one stomach?

Yes a cow has 4 stomachs

63. How do they digest their food?

Cows pull the feed in with their strong rough tongues and swallow it quickly without chewing it.

The food goes into the first stomach and then second stomach. When the cow has eaten her fill she burps up a small amount of food called cud, she chews the food or cud thoroughly, she swallows it and it goes into the third stomach and then moves to the fourth where digestions actually occurs.

64. Why do cows look like their chewing gum?

That chewing is called chewing cud, refer to #63.

65. How many hours a day does a milk cow eat?

Cows spend 6 ½ hours a day eating.

66. How many days does it take the cows body to process her food into milk?

It takes the cows about 2 days to process her food into milk.

67. Do male or female cows give milk?

Females

68. What are males called? What are females called? What are babies called?

Bulls, Heifers or Cows, and Calves

69. How old are cows when they have their first calf?

Two years old.

70. How long is the gestation of a cow?

9 months or about 270 days.

71. Do cows have more than one calf per pregnancy?

95% - 97% the pregnancies result in single births.

72. How many days are cows milked after they have a calf?

305 days or 10 months.

73. How do cows stop giving milk?

When you stop milking a cow the milk glands shut down, milk absorbs back into their body and within 3-5 days they don't produce milk.

74. How many calves do cows have in a lifetime?

After 2 years of age a cow can have a calf every year until they get to be 15-20 years.

75. Do cows have to have a calf each year? Why?

Yes, so they can continue to give milk they must have a calf.

76. How long do cows live to be?

15-20 years

77. When did milk first get pasteurized?

In 1856

78. Why did they pasteurize milk?

Milk is treated with heat in order to destroy pathogens or disease producing organisms.

Pasteurization protects the purity and flavor of the milk without affecting its nutrient value.

79. Who invented pasteurization?

Louis Pasteur, a French scientist discovered that heating liquids to high temperatures kills bacteria.

80. When did dairy plants first start using glass bottles?

In 1884 dairy plants started using glass bottles.

81. What did they store milk in before glass bottles?

Before glass bottles they used jars, pails, cans and crocks.

82. What year was the first paper milk carton used?

In 1906 the first paper milk carton was used.

83. What year was the first plastic milk jugs used?

In 1964 plastic milk jugs were introduced.

84. Years ago when people traveled, how did they get fresh milk?

They had to take the cows with them.

85. What is cud? How many hours do cows chew their cud?

Cud is the food which is swallowed by the cow and later burped up to chew again. A cow chews cud 6-8 hours daily.

86. What time of the year are dairy products sold at higher volume?

Cheese is big at holiday and super bowl time and milk is at higher volume during the school year.

87. What is an udder and where is the udder?

An udder is the mammary glands of the cow, the part of the cow where milk is stored. The udder is made up of 4 quarters.

88. What is an orifice? Where is the orifice?

Orifice is the hole (or the streak canal) that is at the tip of the teat where milk comes out.

89. How many teats does a cow have? Where are the teats?

4 teats under the udder

90. At what age do cows begin to produce milk?

2 years old when they have first calf.

91. How many different breeds of dairy cows are there?

6

92. Which breed gives the most milk?

Holstein

93. Which breed has the most fat in their milk?

Jersey

94. What is fat of the milk called?

Cream

95. Which breed is the largest?

Holstein and Brown Swiss

96. Which breed contributed the most to our nation's livelihood in the pioneer days and why?

Milking and Horthorn cows because they supplied not only milk but excellent meat and power for labor.

97. Which breed is the smallest?

Jersey's

98. Which breed tolerates heat better?

Jerseys

99. Which breed is the most laid back?

Brown Swiss

100. Which breed does best on grazing?

Ayrshire

101. Which breed is the nervous one?

Holstein

102. Which breed is the most popular used and why?

Holstein they give the most milk.

103. Where did these six breeds originate from?

Dairy cattle breeds are of European origin.

104. How much does an average cow weigh?

1400 pounds, that's equal to 28 children who weigh 50 pounds each.

105. Is good milk production in cows something that is inherited?

Yes

106. What is artificial insemination?

We do not use bull on our farm. We use this artificial insemination procedure (with frozen semen delivered right to our dairy).

107. Why do cows have ear tags in their ears?

To identify the cow instead or along with a name for breeding history reasons.

108. What do the numbers on the tags mean?

It is their identity mark to tell the dairy farmer who's who because the cows look a lot alike.

109. Why are records of who's who in the history of doing cattle on the farms so important?

Records are very important because the herd can be improved tremendously by genetics and artificial breeding.

110. What does the term "dry cow" mean?

The cow has been milking for 10 months and now she is 7 months pregnant the last 2 months before she calves is considered dry time because she does not get milked for 2 months until she calves again.

111. How much does a Holstein baby calf weigh at birth?

90-125 pounds

112. Do they get vaccinated just like humans?

Yes they get vaccinated for scours and black leg.

113. What about Holstein spots?

Each Holstein has its own unique spots. There are no two alike. Like the zebra with their stripes.