

**HOLSTEIN FOUNDATION
AYRSHIRE QUIZ BOWL
2020 PRACTICE QUESTIONS**

1. What is the first compartment of the stomach called?
Rumen (HF Workbooks)

2. Why is colostrum important to newborn calves?
Helps build the calf's immune system or Antibodies (Hoard's Dairyman)

3. How many stalls are there in a double-6 herringbone parlor?
12 stalls (Dairy Herd Management)

4. What accounts for the greatest percent of milk production costs on most dairy farms?
Feed (Hoard's Dairyman)

5. During which stage of the dry period is the chance of udder infection the lowest?
During the middle of the dry period (Hoard's Dairyman)

6. Mange is contagious and tends to occur in dairy cattle housed in close proximity, especially during what season?
Fall or winter (Dairy Herd Management)

7. On what day must a animal be born to be the oldest possible cow in the Junior Three-Year-Old class?
March 1 (HAUSA Web Site)

8. What is the average weight of a mature Ayrshire cow?
1,200 pounds (Ayrshire)

9. Feeding proper rations during the summer is important for both cow comfort and maintaining milk production. Which nutrient is most important during the summer months?

Water (HF Workbooks)

10. Moisture content of a compost mixture should be what percent?

50 to 60% (Hoard's Dairyman)

11. The Charm II, gas chromatography and the Signal are tests used to determine levels of what in milk?

Antibiotics (Hoard's Dairyman)

12. This part of the cow is ideally described as "lean, incurving to flat and wide apart from the rear."

Thighs (HF Workbooks)

13. Most farmers try to harvest first-cut alfalfa when it is in what stage?

Late-bud stage (Hoard's Dairyman)

14. Name the dairy cooperative that produces the greatest member milk volume.

Dairy Farmers of America (Hoard's Dairyman)

15. What is the name for the official publication that features Ayrshires and Milking Shorthorns?

The Angle (Angle)

16. What is the single largest product from the beef carcass?

Ground beef (Hoard's Dairyman)

17. What is the most costly disease affecting the dairy industry?

Mastitis (Dairy Herd Management)

18. At birth, the calf's body contains what percent water?

70 - 75% water (Hoard's Dairyman)

19. Injecting cows with a hormonal form of what vitamin before calving may reduce the incidence of milk fever?

Vitamin D (Hoard's Dairyman)

20. Most bacteria grows at what Fahrenheit temperature?

70 to 100 degrees F (Hoard's Dairyman)

21. According to the Dairy Cow Unified Scorecard, how many points are allotted for Rear Feet and Legs?

20 points (Other)

22. On average, which dairy breed's milk has the highest butterfat percentage?

Jersey (Hoard's Dairyman)

23. Pedigree information dealing with the maternal side of the pedigree refers to which parent?

Dam or mother (HF Workbooks)

24. How many pounds of whole milk does it take to produce one pound of butter?

21.2 pounds (Hoard's Dairyman)

25. Once a straw of semen has been thawed it should be used to inseminate a cow within how many minutes?

10 to 15 minutes (Dairy Herd Management)

26. If properly fed to dairy cattle, urea supplies a readily available source of what element?

Nitrogen (Hoard's Dairyman)

27. What mineral in milk may help reduce the incidence of osteoporosis?

Calcium (Hoard's Dairyman)

28. What is the PDCA maximum allowable limit for topline hair in the showing?
One inch (Hoard's Dairyman)
29. At what Fahrenheit temperature does silage become caramelized or heat damaged?
120 degrees F (+/- 5) (Hoard's Dairyman)
30. Why is a rapid pH drop during forage harvest and storage desired?
Maximizes dry matter retention and minimizes spoilage (Dairy Herd Management)
31. Cows spend what percent of their day drowsing or in a quiet wakefulness?
30 to 33% (Hoard's Dairyman)
32. What effect can feeding fats have on milk protein levels: no effect, decreases or increases?
Decreases milk protein (Hoard's Dairyman)
33. In regard to milk quality, what do the initials PI stand for?
Preliminary incubation (Hoard's Dairyman)
34. As the vacuum level in the milking system increases, what happens to the milking rate?
Increases (Hoard's Dairyman)
35. ME production is a way to compare younger cows against older herdmates. What do the letters stand for?
Mature equivalent (Hoard's Dairyman)
36. Why should a teat dip be used after milking?
To reduce or prevent udder infections (Hoard's Dairyman)

37. During the organ development of a calf the heart begins to beat as early as how many days?

21 to 22 days (Hoard's Dairyman)

38. How can people get infected with tuberculosis?

Drinking unpasteurized milk from infected cows or contaminated water
(Hoard's Dairyman)

39. What substance in Guernsey milk gives it a golden yellow color?

Beta carotene (Guernsey)

40. What is the major protein in milk called?

Casein (Hoard's Dairyman)

41. Prostaglandins will only work if what ovarian structure is present?

Corpus luteum (Hoard's Dairyman)

42. Who was the Ayrshire Breeders' Association recipient of the 2018 Master Breeder Award?

Thomas Wolf (Website)

43. What is a common result of a cow being infected with Neospora?

Abortion (Hoard's Dairyman)

44. What is the predominant type of farm system used by dairy producers in New Zealand?

Intensive grazing operations (Hoard's Dairyman)

45. When feeding cottonseed, what is the recommended maximum pounds per day for cows?

6 - 8 pounds (Hoard's Dairyman)

46. In the early spring, heifers on pasture have at times exhibited grass tetany. This can be corrected by supplementing what?

Magnesium (Other)

47. What term defines a legal entity that allows you to hold and manage assets?

Trust (Hoard's Dairyman)

48. In cows, sleep is divided into drowsing, nonrapid eye movement and what else?

Rapid eye movement (REM) (Hoard's Dairyman)

49. When temperatures drop below the thermal neutral zone, energy used for growth and immune function is then used for what?

Maintenance (Hoard's Dairyman)

50. What is the term for the milking system part which is an automatic valve that allows air to enter or exit the shell alternately? It is referred to as the heartbeat of the milking system.

Pulsator (Hoard's Dairyman)

51. What is another name for milk fever?

Parturient paresis or hypocalcemia (Other)

52. What term is used to describe substances that have low pH values?

Acidic (Hoard's Dairyman)

53. What is the structure that connects the teat canal and the teat cistern called?

Furstenberg's rosette (Other)

54. Molds that contaminate drought-stressed corn can produce a toxic compound that appears in milk if fed to cows at high enough levels. What is this toxic compound called?

Aflatoxin (Hoard's Dairyman)

55. You should avoid vaccinating when what Fahrenheit temperature is exceeded?

85 degrees F (Dairy Herd Management)

56. What is it called when a cow is in heat?

Estrus (Hoard's Dairyman)

57. In what part of the digestive system are protected fats digested?

Small intestine (Dairy Herd Management)

58. What does the term gestation mean?

Time mother carries young (calf) (Hoard's Dairyman)

59. What group of animals on a dairy is the most efficient in converting nutrients to growth?

Calves (Hoard's Dairyman)

61. When cutting alfalfa for dry hay what time of day results in the best forage quality?

Late afternoon (Dairy Herd Management)

62. Which class of nutrients has the most energy per pound: fats, carbohydrates, or protein?

Fats (Hoard's Dairyman)

63. In 1906 the first National Dairy Show was held in what city?

Chicago (Progress of the Breed)

64. How many teeth does a cow have on the front of the upper jaw?

None (dental pad) (Other)

65. If you buy 1,000 pounds of feed that is 35 percent dry matter, how many pounds of water are you purchasing?

650 pounds (Hoard's Dairyman)

66. At what approximate age does a calf have a fully developed rumen?

3 - 4 months (Hoard's Dairyman)

67. A second or later lactation cow produces half of her total lactation production in approximately how many days, after calving?

120 days (+/-10) (Hoard's Dairyman)

68. Approximately how many gallons of blood pass through the udder for each gallon of milk produced?

400 to 500 gallons (Hoard's Dairyman)

69. What substance in corn is likely to increase to toxic levels during a drought?

Nitrate (Hoard's Dairyman)

70. Most animals, including cows and humans, have how many genes for each trait?

Two genes (Hoard's Dairyman)

71. What are animals born without horn buttons called?

Polled (Hoard's Dairyman)

72. Chromosomes are found in what part of the cell?

Nucleus (Hoard's Dairyman)

73. Hypothermia in calves at birth will occur below what body temperature?

98.6 degrees F (Hoard's Dairyman)

74. At what age does a Junior membership expire for the Ayrshire Breeders' Association?

21 years old (HAUSA Web Site)

75. What name is given to the surrogate mother in embryo transfer work?
Recipient (HF Workbooks)
76. Rations are supplemented with niacin to help prevent what condition?
Ketosis (Hoard's Dairyman)
77. What does CMT stand for in regard to milk?
California Mastitis Test (Hoard's Dairyman)
78. What vitamin can be injected or fed to cows to reduce the susceptibility to ringworm?
Vitamin A (Hoard's Dairyman)
79. What is the average duration a cow in heat will stand to be mounted?
4 to 6 seconds (Hoard's Dairyman)
80. In general terms, what are the chemical messengers which control a cow's estrus cycle?
Hormones (Hoard's Dairyman)
81. What breed of dairy cows has the undesirable recessive called Weavers?
Brown Swiss (Hoard's Dairyman)
82. In which stomach compartment does metal accumulate?
Reticulum (HF Workbooks)
83. What is the genetic material found in all living organisms called?
DNA (genes, chromosomes) (Hoard's Dairyman)
84. Distillers's grain is added to a cow's ration as a source of what?
Protein (Hoard's Dairyman)

85. What is the name of the publication that highlights some of the most prominent and influential Ayrshire females?

Ayrshire Yearbook (Website)

86. Which vitamin can be synthesized in the body tissue of a newborn calf and therefore, is not required in the diet?

Vitamin C (Hoard's Dairyman)

87. What happens to the nitrate levels of corn after it has been ensiled?

Lowers (Hoard's Dairyman)

88. Aside from its use as a sugar and energy source, why do liquid feeds like molasses and whey permeate fit well in high corn silage diets?

Provide high levels of potassium (Hoard's Dairyman)

89. What is the advantage in storing big round bales above the ground and under cover rather than outside?

Minimizes loss of material and reduces decline in quality (one half of answer is acceptable) (Hoard's Dairyman)

90. What cell, when mature, is the largest in a dairy cow's body?

Oocyte or egg (Hoard's Dairyman)

91. What technology did Professor Enos Perry promote in the United States?

Artificial insemination (Hoard's Dairyman)

92. As the level of fatty acids in the blood increase, what happens to the absorption of fatty acids in the liver?

Increases (Hoard's Dairyman)

93. When eartagging a calf, in which section of the ear should the tag be placed?

Middle section between the two cartilage ribs (Holstein Pulse)

94. What is parturition?
Calving or giving birth (Hoard's Dairyman)
95. Which hormone is produced by the pancreas and promotes mammary cell growth and cell division?
Insulin (Hoard's Dairyman)
96. How many incisor teeth does the adult cow have on the lower jaw?
8 teeth (Other)
97. What is the recommended temperature to thaw semen?
95 - 98 F (Dairy Herd Management)
98. Name the greatest danger attributed to tower silos.
Silo gas or nitrogen dioxide (Hoard's Dairyman)
99. In what gland is bST produced naturally by the cow?
Pituitary gland (Hoard's Dairyman)
100. Most nonprotein nitrogen becomes what in the rumen?
Ammonia (HF Workbooks)
101. What do the initials DUMPS stand for?
Deficiency of Uridine Monophosphate Synthase (Hoard's Dairyman)
102. What is the least digestible part of fiber?
Acid detergent fiber (Hoard's Dairyman)
103. What is the name of the culture cheesemakers add to milk which helps determine flavor, texture and body of the finished cheese?
Starter culture (Hoard's Dairyman)

104. We can reduce ammonia emissions by reducing the feeding of what nutrient?

Protein (Hoard's Dairyman)

105. Which disease stopped the importation of cattle from Europe in 1905?

Hoof and mouth disease (Progress of the Breed)

106. What term is given to the presence of horseshoe shaped rings around the teat?

Teat-end lesions (Dairy Herd Management)

107. Cows produce methane gas. They burp frequently to release the gas from the rumen during normal digestion. If the burping or eructation mechanism becomes paralyzed, gas is trapped and the cow then becomes what?

Bloated (Hoard's Dairyman)

108. What term describes when a heifer has a negative experience the first time she enters a headlock? This type of memory can not be erased.

Fear memory (Dairy Herd Management)