

2008 Senior Dairy Quiz Bowl Questions

Round 07

Phase B

5 Questions

Correct answers are worth 10 points each.

Only the team being asked the questions is to be in the room. Each team will be asked these 5 questions. Answers are to be given by a team captain, but assistance may come from any team member. A question may be repeated only once. Answers must be started within 20 seconds. Partial credit may be given at the discretion of the judges. After one team has been questioned, the other team will enter the contest room and be asked the same 5 questions.

1. Which one of the following is the largest dairy milk marketing cooperative in the U.S.?

- a) Maryland and Virginia Milk Producers
- b) Land O' Lakes
- c) Dairy Farmers of America (DFA)
- d) California Dairies

ANS: c) Dairy Farmers of America (DFA)

2. In reference to feeding, which one of the following describes "heat increment"?

- a) the energy used up in the consumption, digestion and metabolism of a feed
- b) the total amount of energy that a feed contains that is determined by bomb calorimetry
- c) Net energy

ANS: a) the energy used up in the consumption, digestion and metabolism of a feed

3. The National Agricultural Statistics Service (NASS) conducts monthly surveys to determine dairy cow numbers and milk production. Which of the following branches of the Federal government is NASS a part of?

- a) U.S. Census Bureau
- b) Food and Drug Administration (FDA)
- c) Internal Revenue Service
- d) U.S. Department of Agriculture (USDA)

ANS: d) U.S. Department of Agriculture (USDA)

4. To calculate the crude protein content of a feed, which one of the following do we multiply by 6.25?

- a) the energy content
- b) the nitrogen content
- c) the starch content

ANS: b) the nitrogen content

5. Dairy farms with this herd size produce the largest percentage of the milk in the United States?

- a) 100 to 499 cows
- b) 600 to 900 cows
- c) 1000 to 2000 cows
- d) Over 2000 cows

ANS: a) 100 to 499 cows

Phase C

20 Questions

Correct answers are worth 15 points each.

Both teams are in the room for Phase C. The first contestant to signal will answer the question within 5 seconds after being acknowledged by the moderator. Failure to do so will cost that team 10 points. Any contestant answering a question without being acknowledged by the moderator will lose 10 points. If an answer is incorrect, members of the other team will have the opportunity to answer the question without having it reread except for true/false, either or and yes or no type questions. If an answer is given in these types of questions, the question will be replaced with a tie breaker question, and given to the other team. No points are deducted for giving an incorrect answer. Team members are not allowed to discuss the answers in this phase. No partial credit is available in Phase C, except for bonus questions. If neither team can offer an

answer to the question within 10 seconds, the moderator will give the answer and the question will be dropped but neither team will forfeit points.

1. In reference to dairy cow ear tags used in the National Animal Identification System, what does RFID stand for?

ANS: Radio Frequency Identification Device

2. What is the main reason for including soybean meal or cottonseed meal in a dairy ration?

ANS: To provide a source of supplemental protein

3. How many pairs of chromosomes do dairy cattle have?

ANS: 30

4. What is the name of the nutritional disorder that can occur in cattle grazing lush pasture that are fed a diet that is deficient in magnesium?

ANS: Grass tetany

5. What is the name of the liquid found in semen storage tanks on dairy farms that is maintained at a temperature of minus 320 degrees F (-320 degrees F)?

ANS: Liquid nitrogen

6. Why do dairy farmers in North Carolina often use water sprinklers and fans on their cows in the summer?

ANS: To reduce heat stress

7. What is casein?

ANS: The primary protein found in milk

8. At what temperature should milk be held in the farm bulk tank?

ANS: 38 degrees F

9. The Bt gene has been inserted into corn using transgenics. From what does the Bt gene protect the corn plant?

ANS: European Corn Borer

10. In which breed is DUMPS, an inherited condition which results in embryonic death, found?

ANS: Holstein

11. What are the building blocks of proteins?

ANS: Amino acids

12. In reference to dairy cattle reproduction, what is a zygote?

ANS: A fertilized egg

13. On the PDCA Dairy Cow Unified Score Card, how many points are allotted to the "Frame" category?

ANS: 15 points

14. In addition to ammonia and carbon dioxide, what gas with the chemical structure CH₄ is produced in the rumen?

ANS: Methane

15. Which dairy breed produces milk with the lowest average percent butterfat?

ANS: Holstein

16. What is the name of the device that functions to alternate vacuum and atmospheric pressure in the space between the teat cup shell and the liner on a milking machine?

ANS: Pulsator

17. Which of the following is the main advantage to using a “Brown Midrib” corn variety for silage?

- a) higher yields
- b) higher lignin content and lower fiber digestibility
- c) lower lignin content and greater fiber digestibility

ANS: c) lower lignin content and greater fiber digestibility

18. In reference to dairy genetics, what does the acronym PTA stand for?

ANS: Predicted Transmitting Ability

19. The official placing on a class of cows is 3-4-2-1 with cuts of 3-4-5. Your placing is 3-4-1-2. What is your score?

ANS: 45

20. What is the name of the enzyme that breaks down cellulose?

ANS: cellulase

Bonus Questions Each bonus question is worth 20 points.

Bonus questions may be earned in the toss-up round. To receive a bonus question, 3 different team members must correctly answer the toss-up questions. Bonus questions are not passed to the other team, nor are points deducted for an incomplete or incorrect answer to the question. Bonus question will be asked whenever 3 team members have answered toss-up questions correctly with the count kept individually for both teams within a match. Eligibility for bonus questions does not carry over to another match. The answers must come from the team captain but assistance can come from the other team members. Only the number or answers required by the bonus question will be accepted. Example: If the bonus has a four-part answer - the first four answers given by the team will be accepted. Answers to a bonus question must start within 20 seconds and be completed within 60 seconds.

1. Which of the following is the most costly disease in dairy cattle:

- a) foot rot b) acidosis c) mastitis d) metritis

ANS: c) mastitis

2. Of the following age groups of dairy cattle, which group generally has the lowest incidence of calving difficulty?

- a) Heifers (when giving birth to their first calf) b) aged cows c) 1st lactation cows

ANS: b) aged cows

3. Which one of the following ranges is closest to the total ration crude protein requirement for early lactation dairy cows?

- a) 6 to 8% b) 10 to 12% c) 16 to 18% d) 25 to 28%

ANS: c) 16 to 18%