

2009 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. Who is considered to be the father of modern genetics?

- a) Louis Pasteur b) Gregor Mendel c) Gustav DeLaval d) Marie Curie**

ANS: b) Gregor Mendel

2. 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

3. What are the four basic elements present in proteins?

- a) carbon, hydrogen, oxygen and nitrogen
b) carbon, hydrogen, oxygen and phosphorous
c) carbon, hydrogen, oxygen and selenium**

ANS: a) carbon, hydrogen, oxygen and nitrogen

4. Which of the following is not classified as a water-soluble vitamin?

- a) folic acid b) thiamine c) niacin d) Vitamin D**

ANS: d) Vitamin D

5. What is the recommended temperature of water for washing the bulk tank, milk pipelines and other equipment?

- a) 80 degrees F b) 160 degrees F c) 260 degrees F**

ANS: b) 160 degrees F

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. Which of the following terms refers to scours?

- a) brucellosis b) enteritis c) pneumonia d) acetonemia

ANS: b) enteritis

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

ANS: cellulase

3. What type of electrical charge does an anion have?

ANS: negative charge

4. Which of the following describes alveoli in the udder of a cow?

- a) the streak canal b) the gland cistern c) myoepithelial cells
d) clusters of milk secreting cells

ANS: d) clusters of milk secreting cells

5. Why is Poloxalene often added to rations when cows are grazing alfalfa or clover?

ANS: to prevent bloat

6. What part of the calf digestive system does cryptosporidiosis (crypto) affect?

- a) reticulum b) rumen c) omasum d) small intestine

ANS: d) small intestine

7. The demand for fluid milk is greatest during which season of the year?

ANS: Fall

8. Which of the following is not digestible by the dairy cow?

a) cellulose b) hemicellulose c) lignin

ANS: c) lignin

9. What is the maximum somatic cell count (cells/ml) allowed in milk sold in the U.S.?

ANS: 750,000

10. Which of the following is the term for a completely hydrogenated fat that contains no double bonds?

a) unsaturated fat b) saturated fat c) vegetable oil

ANS: b) saturated fat

11. What metabolic disease that occurs in early lactation dairy cows is often treated with propylene glycol?

ANS: ketosis

12. What is the term for the amount of heat required to raise the temperature of one gram of water from 14.5 degrees C to 15.5 degrees C?

a) NE b) TDN c) gross energy d) calorie

ANS: d) calorie

13. What does the Standard Plate Count measure in milk?

ANS: bacteria count

14. What is the name of the cells that surround the alveolus and contract during milking?

ANS: myoepithelial cells (also accept myoepithelium)

15. What is the term for a farm's unique identification number that is part of the National Animal Identification System?

ANS: Premises I.D.

16. Where is the recommended highest priority for the use of sexed semen in dairy cattle?

- a) heifers b) older cows c) all cows, regardless of age**

ANS: a) heifers

17. Which of the following is the main reason that colostrum from older cows is normally higher in antibodies?

- a) older cows have given birth to more calves b) older cows produce more milk
c) older cows have had more exposure to disease**

ANS: c) older cows have had more exposure to disease

18. What nutritional disease is most often associated with laminitis (founder) in dairy cows?

ANS: acidosis

19. A deficiency of what mineral has been associated with increased retained placenta in cows and white muscle disease in calves?

ANS: selenium

20. What is the name of the acute infection caused by the spore-forming bacteria *Bacillus anthracis*, that mainly affects livestock?

ANS: Anthrax

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. A dairy cow is producing 100 pounds of milk per day that contains 3.0% fat. How many pounds of fat is she producing daily?

ANS: 3.0 pounds

2. What is the most common disease caused by Staph. aureus, Strep. uberis, and Klebsiella?

ANS: mastitis

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

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

ANS: c) lower lignin content and greater fiber digestibility