

2002 Senior Dairy Quiz Bowl Questions

Round 03

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. Streptococcus agalactiae bacteria are associated with what cattle disease?

ANS: Mastitis

2. How many days are there between heat periods in the normal cow?

ANS: 21 days (range 18 to 24)

3. What does M.E. stand for in DHIA milk production records?

ANS: Mature equivalent

4. In reference to milk yield, what do the letters FCM stand for?

ANS: Fat-corrected milk

5. Which mineral is associated with the prevention of goiter?

ANS: Iodine

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. What is another name for the foot problem “founder” caused by acidosis in dairy cattle?

ANS: Laminitis

2. What is the name of the method of determining pregnancy in cattle by sending sound waves through reproductive tissue?

ANS: Ultrasound (or ultrasonic imaging)

3. What is the name of the condition noted by a swelling of the udder that usually occurs around the time of calving?

ANS: Udder edema

4. What are methionine and lysine?

a) lipids b) carbohydrates c) amino acids d) nucleic acids

ANS: c) amino acids

5. The total ration protein requirement for early lactation dairy cows is closest to:

a) 6% b) 12% c) 18% d) 24%

ANS: c) 18%

6. What is the major product of silage fermentation that helps to preserve the silage in the silo?

a) amino acids b) oxygen c) lactic acid d) carbon dioxide

ANS: c) lactic acid

7. What is the name of the blister-like structure on the ovary that contains the egg before ovulation?

a) corpuscle b) follicle c) zygote d) chromosome

ANS: b) follicle

8. Which one of the following ingredients would you expect to find in a milk replacer?

a) soybean hulls b) dried whey c) cottonseed hulls d) wheat bran

ANS: b) dried whey

9. Name the 5 major categories on the PDCA Dairy Cow Unified Score Card:

ANS: Frame, Dairy Character, Body Capacity, Feet and Legs, Udder

10. When a sperm with an X chromosome fertilizes an egg, what sex will the calf be:

ANS: Female

11. What is the name of the toxic substance in frost damaged sorghum?

ANS: Prussic acid

12. When posing a lactating dairy cow in the show ring, the rear leg closest to the judge should be in what position?

ANS: Forward

13. In reference to dairy cattle, what does the term “dystocia” mean?

a) the cow is blind b) the cow has laminitis c) the cow has calving difficulty
d) the cow has a “twisted stomach”

ANS: c) the cow has calving difficulty

14. What is the name of the contractile tissue that when stimulated by oxytocin, forces milk out of the alveoli?

ANS: Myoepithelium (also accept myoepithelial cells)

15. Why would you feed the additive Poloxalene to cows that are grazing alfalfa or clover?

ANS: To prevent bloat

16. The lining of this compartment of the ruminant stomach looks like a honeycomb and functions to trap objects such as nails and wire that the cow may accidentally eat. What is the name of this stomach compartment?

a) rumen b) reticulum c) omasum d) abomasum

ANS: b) reticulum

17. One analysis that the milk testing lab can conduct determines the concentration of MUN. What do the letters MUN stand for?

ANS: Milk Urea Nitrogen

18. True or False

“Gross energy” is determined by bomb calorimetry and is the total amount of energy that a feed contains.

ANS: True

19. In a 300 cow breeding herd with a 50% conception rate, how many cows would need to be bred the third time?

ANS: 75

20. The term “effective fiber” is a measure that is used to categorize fiber in terms of its ability to maintain good rumen function. How is the value of effective fiber measured?

a) in terms of protein availability b) in terms of net energy
c) in terms of chewing time in minutes per pound of feed

ANS: c) in terms of chewing time in minutes per pound of feed

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. Where are the immunoglobulins in colostrum absorbed in a newborn calf?

ANS: Small intestine

2. Which volatile fatty acid produced in the rumen is a precursor for glucose?

ANS: Propionate

3. On a milking machine, if the milk to rest pulsation ratio is set at 60:40, what percent of the time is the inflation open?

ANS: 60%

4. If a ration contains 48% moisture, what percentage dry matter does it contain?

ANS: 52% dry matter

5. What is the name of the disease in people that is the same as brucellosis in cattle?

ANS: Undulant fever