

2013 Senior Dairy Quiz Bowl Questions

Round 04

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. Write this down: Calculate the pounds of water in one ton of corn silage that contains 35% dry matter:

ANS: 1300 pounds of water

Calculation: 2000 pounds of silage times 35% dry matter = 700 pounds of dry matter

2000 pounds of silage minus 700 pounds of dry matter = 1300 pounds of water

or

2000 pounds of silage times 65% moisture = 1300 pounds of water

2. Which of the following is the name of the organization that is charged with evaluating genetic traits of dairy cattle?

- a) Animal Improvement Programs Laboratory b) Dairy Business Association
c) Dairy Herd Improvement Association d) World Dairy Expo

ANS: a) Animal Improvement Programs Laboratory

3. What is the term for "the time period after calving when you choose not to breed a cow"

ANS: "Voluntary Waiting Period (abbreviated VWP)"

4. What type of inheritance is it when genetic material is transmitted through the cytoplasm instead of the nucleus?

ANS: cytoplasmic inheritance

5. Write this down: Calculate your heifer's average daily body weight gain (ADG) if she weighs 90 pounds at birth and 450 pounds at 200 days of age.

ANS: 1.8 pounds per day ADG

Calculation: 450 pounds minus 90 pounds birth weight = 360 pounds of gain; 360 pounds of gain divided by 200 days of age = 1.8 pounds ADG

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 dairy cattle are usually the most fertile?

- a) aged cows b) second lactation cows c) heifers

ANS: c) heifers

2. What "inorganic" bedding is the best to use in free stalls?

ANS: Sand

3. What is the primary protein component of milk?

ANS: Casein

4. A deficiency of what mineral has been associated with retained fetal membranes (RFM) in cows and white muscle disease in calves?

ANS: selenium

5. A dairy cow has a four compartment stomach that includes the "rumen". What do we call an animal with this type of digestive system?

ANS: Ruminant

6. Which of the following is the name of the iron-binding protein found in milk that has anti-microbial activity.

- a) selenium b) lactoferrin c) IgG d) alkaline phosphatase

ANS: lactoferrin

7. What is the predominant acid in anaerobically fermented corn silage?

ANS: lactic acid (also accept lactate)

8. What is the common term for what can develop in the rumen of a dairy cow when we feed too much grain and not enough effective fiber?

ANS: acidosis

9. What does the abbreviation NAAB stand for?

ANS: National Association of Animal Breeders

10. What is the main respiratory disease in calves?

ANS: pneumonia

11. What metabolic disease is indicated when the cow goes off feed and there is a noted smell of acetone on her breath?

ANS: Ketosis

12. What muscle keeps the teat end closed and helps prevent organisms from entering the udder?

ANS: Sphincter muscle

13. What does CLA stand for in reference to milk composition?

ANS: Conjugated Linoleic Acid

14. During heat stress, which one of the following times is closest to when a typical cow's internal body temperature peaks?

a) 11:30 p.m. b) 11:30 a.m. c) 7:30 p.m. d) 7:30 a.m

ANS: a) 11:30 p.m.

15. What volatile fatty acid, produced in the rumen, is used by the liver in the dairy cow to make glucose?

ANS: Propionate

16. What hormone is released by the pineal gland in response to longer day length?

ANS: Melatonin

17. What is the term that describes when a straw of semen is thawed and then subjected to cool temperatures before reaching the cow?

ANS: Cold shocked

18. Assuming that weather conditions and rainfall have been good, what has the most effect on the quality of forage?

ANS: stage of maturity at harvest

19. Neutral Detergent Fiber (NDF) contains these three components: cellulose, hemicellulose and _____? What is the third component?

ANS: lignin

20. This substance has a temperature of minus 320 degrees F (- 320 degrees F). It can be found in the semen storage tank. What is the name of this substance?

ANS: Liquid nitrogen

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 one of the following normally occurs first during a lactation cycle:

a) peak feed intake b) body weight gain c) peak milk production

ANS: c) peak milk production

2. Which one of the following is the name of the fiber component in plants that is a part of the cell walls and is not digested and is not absorbed by ruminant animals?

a) pectin a) sucrose c) lignin d) starch

ANS: c) lignin

3. During which season of the year is Vitamin D needed from the diet in the greatest amounts by humans?

a) Spring b) Summer c) Fall d) Winter

ANS: d) Winter