

2007 Junior Dairy Quiz Bowl Questions

Round 02

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. You take a sample of milk from your bulk tank and test it using the Delvotest or the Penzyme test. Which one of the following are you testing the milk for?

- a) milk fat percentage      b) milk true protein content      c) antibiotics

ANS: c) antibiotics

2. True or False

An embryo with two X chromosomes will result in a male (bull) calf.

ANS: False

3. Which one of the following is the name of the acid produced during an improper silage fermentation that has an offensive odor and can cause cows to reduce their intake?

- a) butyric acid      b) lactic acid      c) propionic acid

ANS: a) butyric acid

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

ANS: Premises ID

5. In the reproductive system of a dairy cow, progesterone is the name of the hormone that is secreted by the structure often called a "yellow body". Which of the following is the proper name for this "yellow body"?

- a) cervix    b) ovary    c) follicle    d) corpus luteum

ANS: d) corpus luteum

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. On a feed ration report, you see the letters ppb. What does ppb stand for?

ANS: parts per billion

2. Which one of the following sections of North Carolina has the fewest number of dairy cows?

a) Piedmont      b) Mountains      c) Coastal Plain

ANS: c) Coastal Plain

3. In the dairy cow, what is the name of the gland that produces the hormone oxytocin?

ANS: Pituitary gland

4. Which one of the following does the Standard Plate Count (SPC) measure in milk?

a) water added to milk      b) bacteria count      c) leukocyte count

ANS: b) bacteria count

5. What is the name of the hormone that is critical in the initiation and maintenance of lactation:

a) oxytocin      b) prolactin      c) estrogen

ANS: b) prolactin

6. Grade A milk that is used to make ice cream is classified into which of the following classes?

- a) Class 1    b) Class 2    c) Class 3    d) Class 4

ANS: b) Class 2

7. On a DHIA record, which of the following does days to first service refer to?

- a) the number of days from calving until first breeding date  
b) number of days open  
c) number of days dry

ANS: a) the number of days from calving until first breeding date

8. Which one of the following describes the process of pasteurization in milk?

- a) clarification            b) the process used to kill bacteria in the milk  
c) the manufacturing process that distributes the fat evenly throughout the milk

ANS: b) the process used to kill bacteria in the milk

9. Which one of the following do we call the milk that remains in the udder following machine milking?

- a) lactation            b) residual milk            c) alveoli            d) foremilk

ANS: b) residual milk

10. Which one of the following is the primary reason that a nutritionist would add a "Bentonite" to a feed ration?

- a) to provide a source of energy            b) to provide a source of phosphorous  
c) to bind mycotoxins in the feed

ANS: c) to bind mycotoxins in the feed

11. Which of the following should happen to the body weight of a lactating dairy cow in late lactation?

- a) the cow should gain weight            b) the cow loses weight  
c) her weight remains the same

ANS: a) the cow should gain weight

**12. You purchase one ton (2000 pounds) of dairy feed that contains 30% protein. How many pounds of protein did you buy?**

- a) 230 pounds      b) 630 pounds      c) 600 pounds      d) 2000 pounds

ANS: c) 600 pounds

**13. In a dairy cow, 18 to 24 days is the normal range in the length of which one of the following?**

- a) the dry period      b) the gestation period      c) the estrous cycle

ANS: c) the estrous cycle

**14. Which one of the following compartments of the ruminant stomach functions in a similar manner as the human stomach?**

- a) Rumen      b) Reticulum      c) Omasum      d) Abomasum

ANS: d) Abomasum

**15. Which hormone is required for the maintenance of pregnancy in a dairy cow?**

ANS: Progesterone

**16. Who is the current Commissioner of Agriculture in North Carolina?**

ANS: Steve Troxler

**17. The recommended procedure of dipping the newborn calf's navel in a 7% tincture of iodine solution will help to prevent which of the following conditions in the neonatal calf:**

- a) foot rot      b) pneumonia      c) scours      d) navel-ill (or joint-ill)

ANS: d) navel-ill (or joint-ill)

**18. What is the term for the disease "brucellosis" when it affects humans?**

ANS: undulant fever

**19. What is the definition of a freemartin heifer?**

ANS: a sterile heifer that is born twin to a bull

**20. Which one of the following describes soybean hulls and corn gluten feed.**

- a) forages    b) bentonites    c) by-product feeds

ANS: c) by-product feeds

**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. What dairy breed is traditionally known for producing milk with the highest percentage of milk fat and milk protein?**

ANS: Jersey

**2. Which of the following causes Blackleg in cattle?**

- a) a virus    b) a fungus    c) a bacterium

ANS:    c) a bacterium

**3. How many servings of dairy products per day is recommended for people in the new USDA food pyramid guidelines?**

- a) 1    b) 2    c) 3    d) 4

ANS: c) 3