

**2008 Junior 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. In the United States, dairy farms with this herd size produce the largest percentage of the milk:**

- 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

**2. In order to help prevent milk fever, dairy cattle nutritionists may recommend feeding a certain type of a DCAD (Dietary Cation-Anion Difference) diet for close-up dry cows. Would the nutritionist recommend an anionic or a cationic diet to help prevent milk fever?**

ANS: Anionic diet

**3. In a lactating dairy cow, which one of the following is the hormone released when a cow is frightened and is responsible for a cow not having milk letdown?**

- a) adrenaline (or epinephrine)    b) oxytocin      c) progesterone**

ANS: a) adrenaline (or epinephrine)

**4. Which of the following are often included in rations as good sources of rumen undegradable or “bypass” protein?**

- a) cottonseed hulls and molasses    b) alfalfa hay and corn silage  
c) corn gluten meal and blood meal**

ANS: c) corn gluten meal and blood meal

**5. Why would a farmer include the feed additive Poloxalene in the feed ration for cows that are grazing alfalfa and clover?**

ANS: To prevent bloat

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 one of the following often happens to the milk fat test percentage (or the butterfat test) when the lactating dairy cow is fed low levels of “effective fiber”?

- a) it increases    b) it decreases    c) it remains the same

ANS: b) it decreases

2. In reference to milk quality, what is the maximum legal limit of somatic cells concentration (cells/ml) that milk can contain?

ANS: 750,000 cells/ml

3. Which one of the following is the name of the condition when a dairy cow is receptive to be bred?

- a) artificial insemination    b) heat (or estrus)    c) cloning    d) gestation

ANS: b) heat (or estrus)

4. Which of the following is the weight of one gallon of whole milk?

- a) 8.6 pounds    b) 9.6 pounds    c) 10.6 pounds    d) 11.6 pounds

ANS: a) 8.6 pounds

5. Which of the following 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. Which of the following plants is not classified as a legume?

- a) soybean    b) clover    c) alfalfa    d) corn

ANS: d) corn

7. Which of the following is the normal delivery position when a calf is born?

- a) back feet first    b) shoulders first    c) front feet first and then the head

ANS: c) front feet first and then the head

8. Which one of the following is the term that describes the act of calving or giving birth?

- a) milk fever    b) lactation    c) parturition    d) gestation

ANS: c) parturition

9. What do we call the condition in the cow when the abomasum twists out of normal position?

ANS: displaced abomasum (also accept DA)

10. Which one of the following describes the Pasteurized Milk Ordinance (PMO)?

- a) the document that establishes the Federal Milk Orders  
b) the document that establishes the guidelines for feeding dairy cows  
c) the document that establishes the standards for Grade A milk

ANS: c) the document that establishes the standards for Grade A milk

11. Which one of the following is found in the greatest amount in cottonseed meal?

- a) starch    b) protein    c) fat    d) fiber

ANS: b) protein

12. You purchase one ton (2000 pounds) of dairy feed that contains 20% protein. How many pounds of protein did you buy?

- a) 200 pounds    b) 400 pounds    c) 600 pounds    d) 800 pounds

ANS: b) 400 pounds

**13. Which one of the following vitamins can be produced within the skin of most mammals including dairy cattle?**

- a) Vitamin A      b) Vitamin C      c) Vitamin D      d) Vitamin E

ANS: c) Vitamin D

**14. Which one of the following is the name of the hormone that causes the heifer or cow to come into heat?**

- a) estrogen    b) oxytocin    c) progesterone    d) testosterone

ANS: a) estrogen

**15. Which one of the following is the number of upper front teeth in a dairy cow?**

- a) 5    b) 12    c) 15    d) none

ANS: d) none

**16. Which of the following is the time when is a cow most susceptible to mastitis infection?**

- a) in late lactation    b) during the early dry period  
c) right after she has her calf (at freshening)

ANS: c) right after she has her calf (at freshening)

**17. Which one of the following is defined as the total energy content of a feed?**

- a) net energy      b) digestible energy      c) gross energy

ANS: c) gross energy

**18. What is the term for a period of increased growth rate in heifers that follows a growth restriction earlier in the heifer's life?**

ANS: compensatory growth (or compensatory gain)

**19. What do we call a sterile heifer that is born twin to a bull?**

ANS: Freemartin

**20. When an injection is given subcutaneously, where is the material deposited?**

ANS: Just under the skin

**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. Approximately how many gallons of blood must pass through the udder in order for the cow to produce one gallon of milk?**

**a) 400-500 gallons    b) 40-50 gallons    c) 10-15 gallons**

ANS: a) 400-500 gallons

**3. In dairy cattle judging, what are you referring to when you describe this part as having a higher and wider attachment?**

**a) fore udder    b) rear udder    c) tail head    d) muzzle**

ANS: b) rear udder