

**2009 Junior 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. Which of the following are good sources of rumen undegradable or “bypass” protein?**

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

ANS: a) corn gluten meal and blood meal

**2. Write this down. Your heifer calf weighs 90 pounds at birth and 450 pounds at 200 days of age. Calculate your heifer’s average daily gain (ADG).**

ANS: 1.8 pounds per day ADG

Calculation: 450 pounds minus 90 pounds birth weight = 360 pound of gain.  
360 pounds of gain divided by 200 days of age = 1.8 pounds per day ADG.

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

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

ANS: a) front feet first, then the head

**4. In reference to digestion and metabolism, what describes “heat increment”?**

- a) the energy used up in the consumption, digestion and metabolism of a feed**  
**b) the total amount of energy in a feed?**  
**c) net energy**

ANS: a) the energy used up in the consumption, digestion and metabolism of a feed

**5. Which of the following is a factor that causes calves to develop respiratory illness?**

- a) when calves are kept in individual outdoor hutches**  
**b) when calve are raised outside on pasture**  
**c) when calves are kept in a warm, moist barn**

ANS: c) when calves are kept in a warm, moist barn

**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 vitamin will cows that are exposed to sunlight make on their own?**

ANS: Vitamin D

**2. What is a zoonotic disease (or zoonoses)?**

- a) a disease found only in zoos      b) an incurable disease
- c) a disease that is transmitted between vertebrate animals and humans

ANS: c) a disease that is transmitted between vertebrate animals and humans

**3. What is the main reason that a nutritionist would include a “bentonite” additive in a feed ration?**

- a) to provide selenium      b) to bind mycotoxins      c) to provide energy

ANS: b) to bind mycotoxins

**4. What metabolic disorder are you trying to prevent when you drench a cow with propylene glycol?**

ANS: Ketosis (also accept acetonemia)

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

ANS: Steve Troxler

**6. Which ruminant stomach compartment is the largest relative size in a newborn calf?**

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

ANS: d) abomasum

**7. 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)

**8. What hormone causes the heifer or cow to come into heat?**

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

ANS: c) estrogen

**9. What does TMR stand for?**

ANS: Total Mixed Ration

**10. What type of diet is often fed to close-up dry cows to help prevent milk fever?**

- a) cationic diet                      b) anionic diet                      c) alfalfa hay diet

ANS: b) anionic diet

**11. Why is Poloxalene often added to the ration of cows that are grazing alfalfa and clover?**

ANS: to prevent bloat

**12. What is term for when the abomasum twists out of normal position?**

ANS: displaced abomasum (also accept DA)

**13. What is the main function of the esophageal groove in a baby calf that is receiving milk?**

- a) diverts the milk so that it flows to the abomasum                      b) traps nails and wire  
c) fermentation

ANS: a) diverts the milk so that it flows to the abomasum

**14. What gland produces the hormone oxytocin in dairy cows?**

ANS: pituitary gland

**15. What term is the period when the calf is developing in it's mother's womb?**

- a) lactation            b) parturition            c) gestation

ANS: c) gestation

**16. What is the largest milk marketing cooperative in the U.S.?**

- a) Land O' Lakes    b) Dairy Farmers of America (DFA)  
c) Maryland-Virginia Milk Producers

ANS: b) Dairy Farmers of America (DFA)

**17. Which of the following contains the most fiber?**

- a) soybean meal    b) whole cottonseed            c) cottonseed hulls

ANS: c) cottonseed hulls

**18. DRMS stands for Dairy Records Management Systems. Where is the DRMS located?**

ANS: Raleigh, NC

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

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

ANS: c) 400 to 500 gallons

**20. Which of the following is the primary source of nitrogen that is added to dairy rations?**

- a) crude protein    b) fat            c) limestone

ANS: a) crude protein

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

- a) Over 2000 cows    b) 1000 to 2000 cows            c) 600 to 800 cows    d) 100 to 499 cows**

**ANS: d) 100 to 499 cows**

**2. True or False**

**An embryo with two X chromosomes will result in a bull calf.**

**ANS: False**

**3. What is the name of the opening that the digesta flows through as it enters the omasum?**

- a) colon            b) jejunum            c) ileum            d) reticulo-omasal orifice**

**ANS: d) reticulo-omasal orifice**