

**2009 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. The disease Cryptosporidiosis (“Crypto”) in calves is caused by a protozoan parasite. Which one of the following sections of the digestive system does “Crypto” mainly affect?**

- a) rumen      b) reticulum      c) esophagus      d) small intestine**

ANS: d) small intestine

**2. What are acetate, propionate and butyrate?**

- a) three essential amino acids  
b) three main volatile fatty acids (VFA) produced in the rumen  
c) three minerals required in the ration**

ANS: b) three main volatile fatty acids (VFA) produced in the rumen

**3. Write this down. A cow is consuming 100 pounds of a total mixed ration that contains 55% dry matter. How many pounds of dry matter is the cow eating?**

- a) 55 pounds      b) 45 pounds      c) 100 pounds**

ANS: a) 55 pounds

Calculation: 100 pounds times 55% dry matter = 55 pounds of dry matter

**4. What organization is charged with evaluating genetic traits of U.S. dairy cattle?**

- a) Animal Improvement Programs Laboratory (AIPL)    b) DHIA      c) World Dairy Expo**

ANS: a) Animal Improvement Programs Laboratory (AIPL)

**5. Your veterinarian says that a cow is in the first trimester. What does that mean?**

- a) first 3 months of pregnancy      b) first 3 months of lactation  
c) the first part of the dry period**

ANS: a) first 3 months of pregnancy

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. Why are cottonseed hulls often included in dairy rations?

- a) to provide protein      b) to provide energy      c) to provide fiber

ANS: c) to provide fiber

2. What are you testing the milk for when you use the Delvotest or the Penzyme test?

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

ANS: c) antibiotics

3. Who is the current U.S. Secretary of Agriculture?

ANS: Tom Vilsack

4. Who developed the butterfat test that was the basis for DHIA testing?

- a) Pasteur      b) Borden      c) Babcock      d) Delaval

ANS: c) Babcock

5. How many fatty acids does a triglyceride molecule contain?

ANS: Three

6. What organization provides the majority of funding for the North Carolina 4-H Dairy Youth Program?

ANS: North Carolina Dairy Youth Foundation

**7. How many double bonds does a completely hydrogenated (saturated) fat contain?**

- a) 2            b) 4            c) 6            d) none

ANS: d) none

**8. Why should newborn calves be kept separate from each other?**

- a) to prevent transmission of disease            b) to reduce fighting  
c) to reduce labor costs

ANS: a) to prevent transmission of disease

**9. What does the process of teat dipping help prevent?**

ANS: mastitis

**10. What disease does Mycobacterium paratuberculosis cause?**

ANS: Johnes disease (pronounced YO-NEES disease)

**11. What substance can increase to toxic levels in the lower section of the corn plant stalk during a prolonged period of drought?**

ANS: Nitrate

**12. In what city and state is the National Dairy Shrine located?**

- a) Madison, Wisconsin            b) Harrisburg, Pennsylvania            c) Louisville, Kentucky  
d) Fort Atkinson, Wisconsin

ANS: d) Fort Atkinson, Wisconsin

**13. What main problem is caused when a calf has scours and not enough fluids are absorbed?**

- a) rumination            b) dehydration            c) chelation

ANS: b) dehydration

**14. What functions to alternate vacuum and atmospheric pressure between the liner and teat cup shell?**

- a) compressor            b) regulator            c) pulsator

ANS: c) pulsator

**15. Which of the following is used to get an estimate of colostrum quality using the concept of specific gravity?**

- a) volt meter            b) pH meter            c) colostrometer            d) moisture tester

ANS: c) colostrometer

**16. What happens to the calf's energy requirement during cold weather?**

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

ANS: b) it increases

**17. What is IgG?**

- a) a fat source            b) a cause of metritis            c) a class of immunoglobulins

ANS: c) a class of immunoglobulins

**18. Which of the following groups of dairy cattle are usually the most fertile?**

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

ANS: c) breeding age heifers

**19. Which of the following countries has the greatest number of dairy cows?**

- a) United States            b) England            c) India            d) Brazil

ANS: c) India

**20. What toxic substance is most likely to be found in frost-damaged sorghum?**

ANS: Prussic acid

**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 causes Blackleg in cattle?**

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

ANS: b) a bacterium

**2. What compartment of the ruminant digestive system is termed "manyplies"?**

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

ANS: c) omasum

**3. What category on the PDCA Dairy Cow Unified Score Card refers to angularity and the physical evidence of milking ability?**

ANS: Dairy Character