

**2011 Junior Dairy Quiz Bowl Questions**

**Round 05**

**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. As lactation progresses, milk production declines and milk fat test will usually:**

- a) increase                      b) decrease                      c) remain constant**

ANS: a) increase

**2. What is the name used to describe the waxy substance found in the teat duct that limits bacterial growth and provides a physical barrier against bacteria?**

ANS: Keratin

**3. During nutrient metabolism, what is the term for a protein that acts as a catalyst in starting or speeding up certain chemical reactions?**

ANS: enzyme

**4. Corn silage has the best fermentation and preservation characteristics with minimal seepage when harvested at what percent dry matter?**

- a. 85% to 90%      b. 45% to 50%      c. 32% to 35%**

ANS: c. 32% to 35%

**5. Which one of the following temperatures should milk be cooled to in the farm bulk tank:**

- a). 18 degrees F      b) 28 degrees F      c) 38 degrees F      d) 48 degrees F**

ANS: 38 degrees Fahrenheit

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. At approximately what age does a calf begin to chew its cud?

- a) 2-3 weeks                      b) 6-8 weeks                      c) 10-12 weeks                      d) 12-15 weeks

ANS: a) 2-3 weeks

2. What is the term for the condition involving the ovaries when the cow comes into heat every few days?

- a) lactation                      b) placenta                      c) anestrus                      d) cystic

ANS: d) cystic

3. Which one of the following cannot be digested by the dairy cow?

- a) cellulose                      b) hemicellulose                      c) lignin

ANS: c) lignin

4. The process of flushing fertilized eggs from donor cows and implanting them in recipient cows is called:

- a) artificial insemination                      b) embryo transfer                      c) gestation

ANS: b) embryo transfer

5. If magnesium is too low in the diet when cows are grazing, what metabolic disease can occur?

- a) bloat                      b) metritis                      c) grass tetany or grass staggers                      d) ketosis

ANS: c) grass tetany or grass staggers

6. What is the recommended maximum level of fat in a lactating cow's diet?

- a) 2-3%      b) 3-5%      c) 5-7%      d) 10-12%.

ANS: c) 5-7%

7. What is the name of the enzyme that is added to milk to make cheese?

ANS: Rennet

8. Ovulation is the process of:

- a. Milk ejection from an alveolus  
b. Release of an egg from a follicle  
c. Delivering a calf from the uterus

ANS: b. Release of an egg from a follicle

9. When exhibiting a dairy animal, which direction do you lead your animal in the show ring?

- a. clockwise      b. counterclockwise      c. it does not matter

ANS: a. clockwise

10. Which vitamin is routinely added to milk?

- a) vitamin K      b) vitamin D      c) vitamin E      vitamin C

ANS: b) vitamin D

11. How much does 10 gallons of milk weigh?

- a) 66 pounds      b) 76 pounds      c) 86 pounds      d) 96 pounds

ANS: c) 86 pounds

12. On average, how many pounds of whole milk does it take to make one pound of cheese?

- a) 5 pounds      b) 10 pounds      c) 15 pounds      d) 20 pounds

ANS: b) 10 pounds

13. A type of mastitis in which there is not a detectable change in the udder itself and no observable abnormality of the milk is known as:

- a) acute      b) chronic      c) clinical      d) subclinical

ANS: d) subclinical

**14. The calf develops in what part of the reproductive tract of a pregnant cow?**

- a) uterus      b) cervix      c) ovary**

ANS: a) uterus

**15. What is the name of the hormone that causes milk “let down”?**

ANS: oxytocin

**16. What is the name of the feed additive commonly added to dairy rations that buffers the rumen and helps maintain milk fat test?**

- a) biotin      b) dried molasses      c) ionophores      d) sodium bicarbonate**

ANS: d) sodium bicarbonate

**17. Rumensin and Bovatec increase feed efficiency and body weight gain in heifers. These products are also called:**

- a) energy supplements      b) antibodies      c) ionophores**

ANS: c) ionophores

**18. A protocol such as Ov-Synch is used in cows primarily for what reason?**

- a) mastitis treatment      b) metritis prevention      c) estrus synchronization**

ANS: c) estrus synchronization

**19. What is another name for the hip of a cow?**

- a) thurl      b) hook      c) pin      d) hock**

ANS: b) hook

**20. In North Carolina, the highest conception rates would be expected in which one of the following months?**

- a) June      b) August      c) September      d) December**

ANS: d) December

**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. Proper cleaning of milking equipment helps to insure the milk is:**

- a) low in bacteria      b) free of antibiotics      c) low in white blood cells

ANS: a) low in bacteria

**2. In the new Dietary Guidelines for Americans how many daily servings of lowfat or fat free milk products or milk is recommended for children age 9 years old and older?**

- a) 6      b) 2      c) 3      d) 4

ANS: c) 3

**3. Calves should be dehorned at approximately what age?**

- a) 3 weeks      b) 6 weeks      c) 9 weeks      d) 12 weeks

ANS: a) 3 weeks